

The seal of the Massachusetts Institute of Technology is centered in the background. It is a circular emblem with "MASSACHUSETTS" at the top and "INSTITUTE OF TECHNOLOGY" at the bottom. Inside the circle, there are two figures: a Native American on the left and a bearded man on the right. Between them is a shield with "SCIENCE AND ART" and the year "1861". A banner at the bottom of the seal reads "MENS ET MANUS".

THE TECHNOLOGY REVIEW

CONCERNING THE PRESIDENCY

Samuel Wesley Stratton : An Interview
The President of Tech
The Work of the Bureau of Standards
Comment of President Harding, and others

FLYING THROUGH EUROPE

By E. P. Warner

"G. SWOPE, HELPER"

By Willis R. Whitney

VOL. XXV

November, 1922

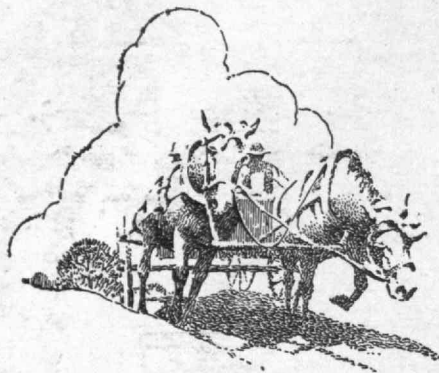
No. 1

PUBLISHED BY THE ALUMNI ASSOCIATION

technology review

Published by MIT

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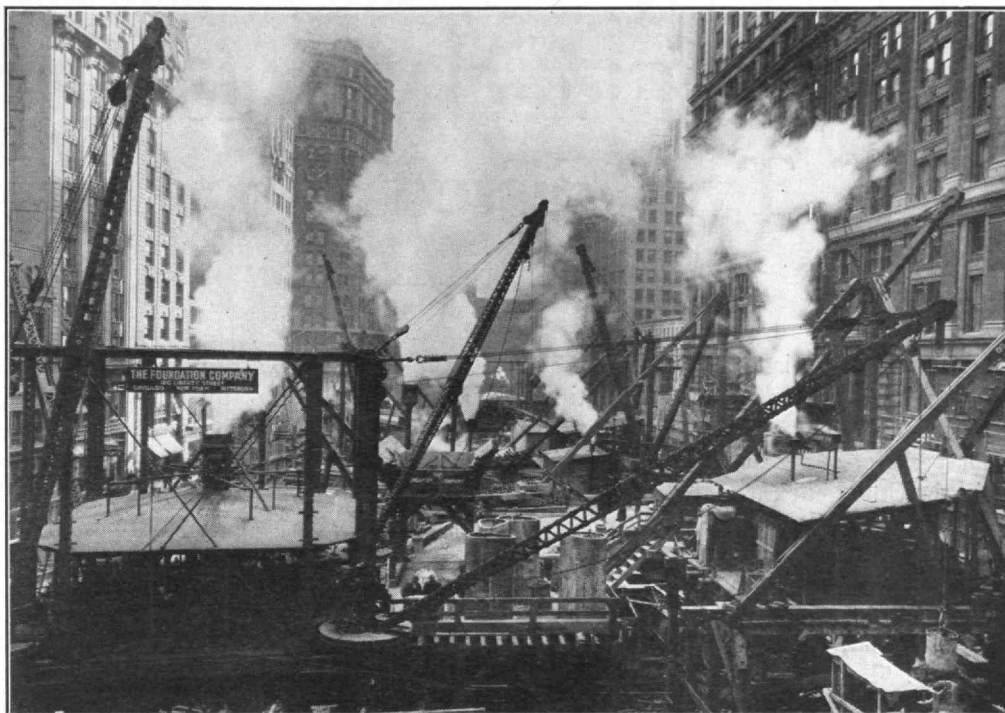
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William L. Fletcher, Inc.

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BOSTON 17, MASS.

THE TECHNOLOGY REVIEW

RELATING TO THE
MASSACHUSETTS INSTITUTE OF TECHNOLOGY

H. E. LOBDELL
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E. F. HODGINS
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Vol. XXV

NOVEMBER, 1922

No. 1

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PUBLISHED BY THE ALUMNI ASSOCIATION

Harry J. Carlson, *President*

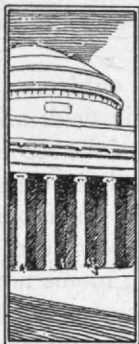
Walter Humphreys, *Secretary-Treasurer*

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S. W. Stratton



THE TECHNOLOGY REVIEW

RELATING TO THE
MASSACHUSETTS INSTITUTE OF TECHNOLOGY



The Past Months

AS the unexpected climax to an uneventful summer, there comes the best of news for Technology. The election of Dr. Samuel Wesley Stratton, present director of the Bureau of Standards to the presidency of the Institute, is fully dealt with on other pages. It is necessary here only to record the fact in its due position at the top of the list of occurrences which have been notable for us since July. With Dr. Stratton's assumption of the presidency on January 1st will come the first assuaging of the sense of loss which has kept a cloud thrown over the Institute since, in January, 1920, Dr. Maclaurin died.

BUT the summer was also notable for the Technology Review. It had been felt for some time that Technology's ever-growing Alumni body needed a more adequate news-service than could be supplied by a magazine issued only four times a year. A number of persons had long regarded a monthly as a thing to be hoped for near the end of time's dim corridor, though not necessarily before. But the release of over 800 new men from the Institute to potential membership in the Alumni Association (which occurred on '22's graduation day) made the issue concrete—dramatized Technology's need for a larger Alumni chronicle. With classes commensurate in size (though of not quite such bulk) in prospect for an indefinite period, it was obvious that a monthly magazine for Technology Alumni was no longer a luxury. Thus necessity has mothered one more fledgling.

IT is perhaps well to explain to the reader before he attempts to proceed further along this page without the key, that here is a new feature of the Review. Every issue will hereafter contain on its first pages a digest, a resumé, a summary, an abstract of

what has happened during the past month, or when a summer lapses, the past months. It will aim to be a close-cropped account of the affairs of Technology and Tech men, written to compass the most happenings in the fewest words. Some of these happenings may receive a more extended news as editorial treatment in the inner pages: some may not. The aim of these two pages is inclusion, not selection—Technology seen through a wide-angle lens.

TWO NEW department heads begin their active terms of service this fall. Prof. C. L. Norton has had both of Professor Wilson's mantles fall upon him, and is now, in addition to being director of the Division of Industrial Co-operation and research, head of the Department

of Physics, in charge of Course VIII, and the new member of the Administrative Committee. In the Department of Biology and Public Health, Sedgwick's favorite pupil succeeds to Sedgwick's place. Prof. S. C. Prescott, '94, who has been administering the affairs of the department since the death of its beloved leader, is now confirmed as his successor. Here is a choice that will meet with the widest approval in scientific circles. A glimpse of the personality of the new head, by Prof. C.-E. A. Winslow will be found elsewhere in this issue.

CONCERNING THE PRESIDENCY:

For an exclusive interview granted by Dr. Stratton to the "Review," see page 7.

For an account of the work of the Bureau of Standards, see page 11.

For Dr. Stratton's biography, see page 13.

For expressions of opinion from prominent educators of the country, see page 15.

IT was a welcome decision that during the summer Technology was selected the future host of some 3000 scientists from almost every university in the country. From December 26 to December 30, the American Association for the Advancement of Science will hold its 75th convention in Boston. The Hotel Somerset will be the social and the Institute, the scientific, headquarters of the convention.

Prof. S. C. Prescott, head of the department of Biology and Public Health at the Institute, is the general chairman in charge of arrangements. Other Technology professors serving on this committee are, Profs. H. W. Tyler, J. F. Norris, W. Lindgren and R. P. Bigelow. The secretary is Mr. A. L. Townsend, instructor in Mechanical Engineering at the Institute.

The president of the national association for the current year is Prof. J. Playfair McMurrich of the University of Michigan. Other officers are Burton E. Livingston of Johns Hopkins, is permanent secretary. The last meeting was held in Toronto during the Christmas holidays of 1921.

The meeting will also be the occasion of the holding of the first of the Sedgwick memorial lectures, established at M. I. T. in memory of the late Prof. W. T. Sedgwick. The lecture will be given on December 29, by Prof. Edmund B. Wilson of Columbia University.

THE first term of the school year 1922-23 opened on October 2. The early returns from the Registrar's Office indicated a slight decrease as compared with the past year. The total of students in attendance in all courses this year is somewhat over 3100. Last year's revised figures at the beginning of the term were 3535. The decreased numbers this year can be assigned to two causes: first, the decrease of numbers of students pursuing higher education, which always lags about a year behind a severe economic depression; and second, the fact that the Admissions Committee of the Faculty has this year set its entrance requirements higher than before. Also, the Committee on Provisional Students has definitely tightened the conditions of entrance. The number of students enrolled is still, however, greatly in excess of the number which the present buildings were originally designed to hold.

Registration progressed smoothly this year under a system somewhat altered from that of the past and devised by Mr. J. C. MacKinnon, who, as assistant to Professor Merrill, the Acting Registrar, has had complete charge of the Institute's "paper work" since the resignation of Professor Humphreys in June.

DURING the summer, the office of the Superintendent of Buildings and Power was somewhat active. It was found imperative this year to release the cramped Registrar's Office into a space more appropriately large. The office arrangement on the first floor of Building 3 has consequently been largely revised. The collection of radiators and coils in the

old "refrigeration lab" has been moved outdoors to a new building erected beyond the athletic field, and the Registrar's Office, with the exception of the record room, has joined forces with the Admissions Office upon the other side of the hall. The suite of rooms thus released on the south side has now been turned over to the Dean's Office. Two waiting rooms now grow where one grew before: one to take care of the throngs waiting for the Dean and Assistant Dean; the other for those seeking to come before the presence of those in the Admissions or Registrar's offices.

THE summer session was large and furious. The Institute gave no impression of running on one cylinder. It does not, of course, yet attract some 12,000 school teachers from the South and Middle West, in the manner of Columbia University, but it has increased greatly in the past few years. Technology's is almost distinctive among summer sessions in that as a session, it neither begins nor ends. Each course has its separate calendar. Some began on Graduation Day, others began two weeks before the fall term opened. The rest of them went off sporadically in between times. The formality and strict rigidity of the winter schedule is thus abolished, and the change, psychologically, is of excellent advantage to the students.

As yet, there has been little attempt to make the summer session appeal to non-collegiates. There are few courses especially designed for detached consideration by people not aiming at a college degree. The personnel of the summer session is made up almost wholly of regular college students of two classes: the wary, who are anticipating, and the not-so-wary, who are repeating.

The sum of these two totalled 1363 this year.

FRIDAY, October 13, was the interesting date upon which the newest addition to the line of All-Technology Smokers was held. This smoker is the first annual get-together of the school year and is the time at which, each year, the Institute undergraduate activities issue to the freshman class their first official clarion call for candidates. Some 2500 students turned out this time. They were plied with food, cigarettes, cider, milk chocolate, speeches, advertising blotters, lollipops and movies. All of these things they enjoyed, possibly to varying degrees. Food was by the Committee in Charge, of which H. I. Beadle, '23, was Chairman; cigarettes and blotters were by VooDoo; cider was by the Musical Clubs; milk chocolate was by The Tech; lollipops were by Tech Show; speeches were by Dr. Allan Winter Rowe, K. C. Kingsley, '23, Dean Talbot, and H. J. Carlson, President of The Alumni Association. The movies were by The Technology Review and Harold Lloyd.

Samuel Wesley Stratton: An Interview*

The first authorized statement given by him after his selection for the presidency.

In the writing room of the Cosmos Club in Washington there hangs a portrait of Francis Amasa Walker, the third president of the Massachusetts Institute of Technology. It was in every way fitting that here

in the presence, as one might say, of the third president, I should have my first conversation with the ninth. Fitting, because the impression one gets is that Samuel Wesley Stratton is a contemporary version of Francis Amasa Walker. Two days before, when I had studied Dr. Stratton's camera portrait with a new interest and a new regard, I had been struck by an odd reminiscent flash which told me that Technology had known such a man before. I had, however, no clear idea of what was in my mind until I found myself talking with the coming president under the gaze of one of the past. Then I knew. I do not want to be misunderstood — there is no overwhelming physical resemblance between the two, and yet a resemblance is there. General Walker was years before my time, of course. All I have ever learned of him I have got from photographs and from his writings that I have read, and from talking with those who did know him. Just as obviously you do not get to know a man with all intimacy during the course of some five hours spent with him, but by comparison of what I knew concerning General Walker with what I learned that day in Washington of Dr. Stratton, I know that beyond mistake these two are of a single type.

I had arrived early that morning. It was a busy morning for him (as most mornings are), and while he attended department meetings, I sat and read documents telling of the wonders that his twenty-one years at the Bureau have brought about. When Dr. Stratton had come to it, I learned, he had found a meagerly furnished office and four employees. When he leaves it, as he will in January, he will leave an organization of 1000 scientists and scientific artisans housed in some ten or twelve buildings that occupy

By H. E. LOBDELL

In collaboration with E. F. Hodgins

all of a thirty-four acre site. The more I read of this, the more I became obsessed with the idea that Technology has a second Walker. Stratton did with the Bureau of Standards what Walker did with the Census. He found nothing and he left something.

The time that I waited was not sufficient to let me learn of more than a fraction of the accomplishments that Dr. Stratton has crowded into these twenty-one years. It was about noon when he emerged from the entanglements of department conferences and I met him face to face.

His photographs are truebills. He is a short, stocky, muscular, broad-shouldered man with shrewd blue eyes and light hair that now has much gray mingled in it. He is a man of good square angles — a cubist could build him out of rectangles with ease. His shoulders are square, his close-cropped mustache is square, his hair is combed squarely across his forehead. Down to his finger tips he is right-angled. Although he is short and heavy, his is a protein weight. His muscular strength impresses you as being distinctly above the average. Certainly, his physical motions are as swift and accurate as an athlete's. But he is economical with them. There

is no lost motion. He has a habit of looking at you with his head tilted slightly downward and to the left, and when those eyes meet yours, you may have a bad minute if your conscience is not clear. There is nothing of the inquisitor in his manner, but he impresses you as seeing anything that should be seen, independent of whether you would like him to or not.

He talks to you in a rather deep voice, which he uses quietly and without display. When he believes something to be worth-while, he states his convictions about it clearly, and brings to his support a remarkable amount of corroborative detail. Yet there was never a man who found less use for the first person singular. When he sat across the luncheon table and talked, I was extremely anxious to steer him into talking about

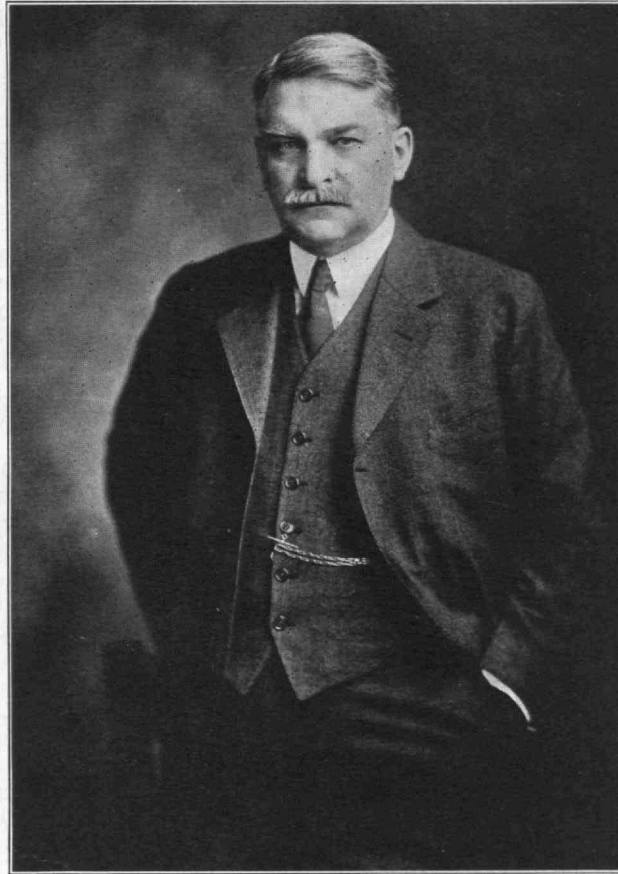


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"Samuel Wesley Stratton is a contemporary version of Francis Amasa Walker . . . Beyond mistake, these two belong to a single type."

himself. He was extremely anxious to talk about anything else. He did. Anything and everything else. We did not discuss the personality or the achievements of Samuel Wesley Stratton.

Naturally, the subject that claimed most of his attention was the problems and possibilities of the Tech Presidency.

"Doctor Maclaurin was decidedly right when he said that a technical school was not doing its duty unless it co-operated to the fullest extent with industry," he said. "But business men must learn the full meaning of that word 'co-operation.' They must learn that they have got to feed men in to the faculties and staffs of schools like Tech, as well as entice them away. The manufacturer who brings his problem to the Institute or to the Bureau and obtains a successful solution, all too often tries to hire away the research worker who solved the problem for him. The manufacturer should realize that by too strenuous efforts to take men from great institutions like Technology, he may badly hamper the progress of his own industry. When a manufacturer takes a research man away from a public or semi-public institution, to a certain extent he isolates him scientifically, and narrows his field.

"One of Technology's chief functions, apart from co-operating with industries, is to show manufacturers in the same, or interdependent industries, how to co-operate with one another. This is a lesson that is just beginning to be taught in American business, and Tech has a wonderful opportunity for missionary work. German industry was the marvel of the world in this respect before the war and it was Germany's technical schools that blazed the trail for it."

The talk drifted to the subject of the Institute's present curriculum. "In these complex days," he said, "if a technical institution can, during four years, impress on the undergraduate some sense of where the boundaries of science really are and give him some slight idea of how to make the proper scientific approach to the problems he is later apt to meet, it will be doing well. It is no longer possible to hope for more than a training in fundamentals during a man's undergraduate career. Even that is a good deal to hope for. In some of our best schools this groundwork is shockingly neglected. It is hard to tell just what is the matter. Probably we need a good deal less mental forcible feeding of applied science, before the undergraduate has any conception of what physics and mathematics really mean. If we are to make our groundwork thorough, perhaps we must take more time. This may mean deferring a number of courses in applied science until a man has completed his undergraduate career. In consequence, the average scientific graduate school may, I think, tend to become more and more like the co-operative courses which Technology has originated in chemical and electrical engineering. After all, the way to apply science is to apply it."

"Do you approve of a separate graduate school?" I asked.

His answer was emphatic. "No," he said. "I am thoroughly glad that at Technology there is no segregation of graduate students from the undergraduates. We need more personal contact between these groups to inspire the undergraduate to spend an extra year or two in study. The arbitrary four years is fast becoming too short a time."

The President was most interested in this subject

and we discussed it for some time. When Dr. Stratton warms to his subject, he does not drop it until he feels satisfied that he has done it justice. When he stops, it is on a period and suddenly. He is no rambler.

"What about the present agitation concerning a limitation of numbers?" I asked.

He thought for a moment. "With so large and so insistent a demand for the kind of men that Technology aims to turn out, it does not seem to me that a policy of arbitrary restriction would be wise; but, on the other hand, Tech cannot waste its time trying to make an engineer out of a man who should have specialized in music. The problem of determining whether a man is educable must be unusually complex at Technology. It is now hopelessly trite to say that the entrance examination method is unsatisfactory and badly in need of modification; but I think we are distinctly not approaching the solution of the problem by making entrance to college contingent upon the evanescent thing, 'personality' as it may be determined by several men whose ideas of a desirable college citizen may be narrow and bigoted. I should like to see Technology enlarge the scope of its work and increase its facilities for giving instruction to the greatest extent, and yet have it preserve its high academic standard and absolutely shun anything that suggests quantity production. Sometimes a man knows his own qualifications better than his teachers; sometimes his teachers can see his qualifications, or more probably, his lack of them when he cannot; sometimes no one knows. The so-called psychological tests are at present in an empirical stage, as their proponents are free to admit, but I confess that I am greatly interested in them.

"Everyone who applies for admission to Technology has not been given the sort of brains which would make him fit to master its curriculum, nor the shrewdness to know how to apply it, nor the integrity and character to use it with advantage to mankind and himself, but when some one does come to us and has all these things, we have got to find it out. The present American college entrance examination system often excludes this man and lets in others whose lack of the proper mental equipment seriously hampers classroom efficiency. One solution which has found fairly wide application is the policy of admitting almost unlimited numbers to the freshman class and then relentlessly weeding out the unfit at the end of their first year. Naturally, you know a man far better after you have seen a year's specimen of his work than after you have seen the specimen he has turned out in three hours, but this policy, good though some of its qualities are, clogs some of our classrooms almost intolerably."

The conversation shifted to more material things. We spoke for a moment of the president's house. He was interested to learn of its proximity to the dormitories.

"How large are the present dormitories?" he asked.

I told him that they accommodated 167 men out of a student body of, this year, over 3100.

"We must have more dormitories. Men with common interests should live together to get the most out of these interests, whatever they are. This is particularly true of students. The associations formed through dormitory and fraternity life cannot be formed in any other way."

"What about student activities," I asked him.

"I am in hearty sympathy with them," he said

vigorously. "I have heard of the admirable way in which Technology undergraduates conduct their publications, athletic teams, etc., and I am a firm believer in the desirability of a healthy participation in them for recreation. The man who studies and does nothing else is missing a portion of his education which, it seems to me, is vital to his success in later life. I do not want to be in touch with the undergraduates only through their scholastic work. I look forward with the greatest pleasure to that phase of the presidency which will bring me in touch with Tech men at their play."

Frankly and unashamed, I wrote these words down into my notebook. When I had finished, Dr. Stratton said, "Now let me ask you a question. What about the alumni?"

"One of Dr. Maclaurin's greatest works," I said, "was his welding of them into the close homogeneous body they are today."

"I am delighted to hear that," said Dr. Stratton. "I said a short time ago to a prominent corporation member, 'Can the alumni be depended on to help Technology in the future as in the past?'" His answer was, '100% strong.'

"You know, that is one of the most satisfying features of the institution — that loyalty of the Tech alumni. A school whose alumni are indifferent to her continued progress, has failed somewhere in the way she trained them. I know I shall be glad many times of Technology's loyal alumni body, not for reason of the financial assistance which they can render, but because the alumni are intimately aware of the shifts and changes of industry and know where we may show a tendency to become out-of-date in some phases of our teaching. With the constant changes that are being brought about through invention and research, the industries of the country are moving forward at such a rate that it is hard for the technical schools to keep abreast of the progress. In some fields the technical schools lead this progress, but in some others they must follow. With thousands of interested alumni as our agents, we should be able to get advice and suggestions which can be made into most useful texts for shaping the character and the form of the instruction Technology gives."

In the middle of the afternoon we motored to the Bureau of Standards. When you see Dr. Stratton in the laboratories and workrooms of the vast enterprise that he has built up, you see him in a most revealing light. The Bureau has gone far from being a "little office with three or four employees," but the increase of personnel does not seem to have taxed Dr. Stratton's memory in the slightest. He seemed to know personally everyone's profession or trade, and to know intimately all the details of the work which the man was then executing. His speech to the men was full of small, homely questions and comments about this detail or that, that a director could very well be excused from knowing. Not so with Dr. Stratton.

"How is that work coming along?"

"When did you get your big pot made?"

"Did So-and-So send that package to you as he promised?"

"Is Blank Company perfectly satisfied with that?"

"Have you heard anything more about how such-and-such turned out?"

These were a few of the seemingly countless questions that Dr. Stratton put to the men in the shops and laboratories.

After an hour and a quarter of hasty survey in the optical glass section, the section devoted to ceramics, the miniature paper mill, the textile laboratories, the leather tanning and the rubber compounding laboratories, I found that we had covered one quarter of a building which was itself about one-seventh of the plant. It seemed to me as if Dr. Stratton, had he not been impeded by my lingering presence, would have toured the entire Bureau that afternoon in just such a manner. It occurred to me to wonder who would tour it that way when he has gone.

When I was not occupied with marveling at how Dr. Stratton kept his grasp on everything that happened at the Bureau, I was busy marveling at the Bureau itself. The section devoted to optical glass was particularly fascinating. It is here that, for the first time during the war emergency, optical glass of the highest grade was made in something approaching quantity. About the room there were huge pots holding half a ton of glass that a short time before, was a stirring liquid.

I saw the patient, tedious process of "cooling down" what was to become one of a pair of huge lenses. When a huge block, the product of one of these pots, is cut and polished on its surfaces, it is so clear that one looks through it as through so much air.

Dr. Stratton led the way to his office. It is a room, not so great in size, with a desk at one side between two windows, and furnished with the comfortable appointments of an executive office. On the desk there stood a vase of exquisite roses. The walls of his office were covered with portraits of men whose names are known world wide and with the illuminated testimonials of more than one learned society. At one side of Dr. Stratton's desk there was a large fireplace with huge polished brass andirons. "Is there a fireplace in the president's office at Tech?" his secretary asked me when Dr. Stratton had left the room for a moment. "There is," I answered, "but I doubt if it has ever been used." "It will be used after January," his secretary assured me. "An open fireplace is a hobby of Dr. Stratton's."

It was, I gathered, one of his few hobbies besides his work. Motoring, however, is another and fishing is still another. During the course of our ride to the Bureau, he had said suddenly to his secretary, "Tomorrow is Saturday, isn't it?" He was told that it was. "That's too bad," he said, "too bad. I had wanted to go fishing tomorrow and now I shan't be able to, I have an appointment —" He mentioned an appointment that any politician in Washington would have given worlds to have had. To the Doctor, however, it meant merely an interference with one of the rare joys of life.

Dr. Stratton seated himself at his desk and in a moment an assistant brought in a stack of papers which must have been a full foot high. They looked as if they weighed about twenty pounds. The Doctor plunged into them. They were all to be signed. He must have signed about 200 documents while he sat there and talked to me and listened to what I said to him and commented on it. His is no single track mind. It was not routine work, this signature afflictment. Each paper received the full benefit of his swift, penetrating glance and some of them fell short of what they should be to receive his autograph. These he swiftly sorted out of the pile as he came to them. How he was able to do this and at the same

time conduct not only a lucid but a penetrating conversation, I do not know.

"I have to go to the Commerce building now," said Dr. Stratton, when our talk in his office was finished. "Come along."

It was late in the afternoon as we left the Bureau and motored swiftly to the building of the Department of Commerce. As we came into the street, we heard a newsboy lustily announcing to the world that the Giants had won.

"The Giants," said Dr. Stratton reflectively. "Let me see, that's New York, isn't it?"

I felt a little relieved. After all, there were limits to the knowledge of the man. I explained patiently that the Giants were New York, true enough, but that the truth thus phrased concealed the fact that New York had also lost that day. "I take it you are not a fan," I said.

"Not of professional ball," he answered.

I remembered that earlier in the afternoon his secretary had related to me an anecdote which made it clear that it was the professionalism and not the sport in which the Doctor was not interested. In summer time the men of one department in the Bureau had been playing ball on a stretch of green between two buildings. "One department head came to Dr. Stratton and complained about it because he said it was ruining the lawn," his secretary told me, "but Dr. Stratton told him that he thought it was better to play baseball than to have a lawn and they kept right on playing."

"It is better to play baseball than to have a lawn," sounds biblical. I almost told Dr. Stratton that and then decided I would not. But it occurred to me


that the man who would say such a thing would probably feel that it applied to his remarks earlier in the afternoon about undergraduate activities — that it was better to play at ball or at rowing, or at swimming, or at publishing magazines or running a "show" than it was to abstain from these things and keep the lawn of one's scholastic record too spotless and immaculate. I am inclined to believe that he holds this to be the truth.

We went into the Commerce Building, up the elevators and into one of the offices of Mr. Hoover. The Doctor took a vacant chair and in was brought a pile of papers similar to the ones he had dispatched so swiftly in his own office. I sat quiet while he signed what seemed to be reams upon reams of letters, and to occupy my time the Doctor selected one from the pile and passed it over to me. "It is the new broadcasting radio license we are putting out," he said. I glanced at the face of it and read the script wording. It was continued on the back and I turned the sheet over. It was signed at the bottom, "S. W. Stratton, Acting Secretary of Commerce."

I voiced my surprise. "Oh, yes," he said, "The Secretary delegates some of his official duties to me."

Licensing broadcast stations is certainly an "official duty" that is worth-while. By every stroke of his pen Dr. Stratton was adding to the radius to which science can carry its message. When he comes to Technology he will not license broadcasting stations — He will operate one. A different kind of one, however: a station that broadcasts the teachings of science to almost every country that is known. When Dr. Stratton undertakes its spread, there can be not much doubt of its clarity and power.

CLASS OF SERVICE SYMBOL		Form 1204	
Telegram		Telegram	
Day Letter	Blue	Day Letter	Blue
Night Message	Nite	Night Message	Nite
Night Letter	N L	Night Letter	N L



WESTERN UNION

TELEGRAM

NEWCOMB CARLTON, PRESIDENT
GEORGE W. E. ATKINS, FIRST VICE-PRESIDENT

RECEIVED AT 15 BOYLSTON ST., CAMBRIDGE MASS.,

154B TY 69 GOVT BLUE

THE WHITE HOUSE WASHINGTON D C 6.34P OCT 13TH. 1922

H. E. LOBDELL

EDITOR TECHNOLOGY REVIEW

CAMBRIDGE MASS.

REPLYING TO YOUR REQUEST I FEEL THAT THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY IS TO BE CONGRATULATED ON SECURING THE SERVICES OF DOCTOR STRATTON AS ITS PRESIDENT AND DESPITE THE FACT THAT THE POSITION WHICH HE VACATES AT THE BUREAU OF STANDARDS WILL BE DIFFICULT TO FILL I AM GLAD TO CONGRATULATE THE INSTITUTE

WARREN G HARDING

6.45P

The Bureau of Standards

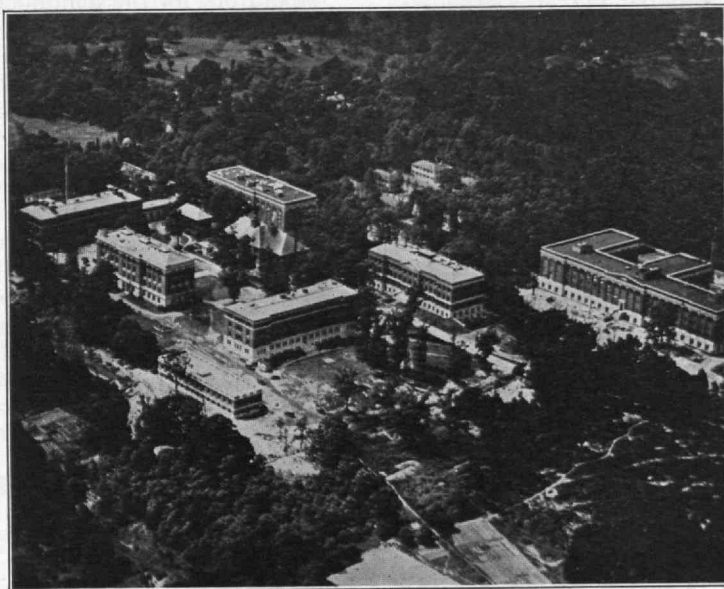
An account of the work done under Dr. Stratton's supervision

When, in 1901, Dr. S. W. Stratton left the department of Physics in the University of Chicago to become the director of the newly-created Bureau of Standards, there existed as a nucleus for his work only the old Office of Weights and Measures, a part of the Coast Survey of the Treasury Department of the United States. The office employed only a few men and was chiefly used in connection with the customs service and the geodetic survey. In 1903, the Bureau became a part of the newly-created Department of Commerce and since then its growth has been rapid, particularly in the last ten years. In 1912, the Bureau employing a staff of 272 men, conducted 73,196 tests of the aggregate value of \$137,882. The 1920 report showed that with a staff of 1250 persons the Bureau had conducted 126,788 tests of an aggregate value of \$689,645. Today, the Bureau has developed from a small institution to a great research laboratory of 12 buildings, employing nearly 1,000 men, occupying a site of 24 acres in a northwest suburb of Washington, where this large staff of scientists and their assistants conduct all the testing and other research done for the government, as well as for many private industries, acting virtually as the final authority in the country in all matters of measurements, of properties of materials, and of procedure in standardization and manufacture for our American industries. This great work of twenty-one years is generally considered to be the monument of one man, its first and only director to date, Dr. Stratton.

Valuable as the Bureau is to the government, its work is undoubtedly of greater value to private industry and the public at large. Hardly any product exists today which has not been standardized, improved and cheapened, and the public protected thereby, by the work of Dr. Stratton's laboratories. Its service to industry may be summarized briefly under five heads. First, it supplies the standards and constants necessary to the introduction of scientific methods in industrial processes; second, it serves as a clearing house where the technical discoveries of today are made available today to manufacturers, thus tendering industrial progress more rapid than formerly; third, by undertaking such researches as may be necessary in any process, it finds the disease and often the remedy, whereby improvement quickly follows;

fourth, it assists manufacturers in standardization both of the quality of materials and the performance of devices, thus making for simplification, speed, economy and efficiency, without interfering with the individual freedom necessary for progress and improvement. The Bureau through its experts, therefore, keeps in closest touch with the needs of industry and often anticipates the need for research; fifth, the Bureau by serving as the research and testing laboratory for the government service, and by publishing its results and conclusions, renders a service of the greatest importance to both the manufacturer and the consuming public.

The notable advance in standardization in the last score of years is due to the fact that the government first required it in all its departments, using the Bureau of Standards as its authority. The Customs and Internal Revenue departments, the Steamboat Inspection and Coast Guard Service, the Bureau of Navigation and Fisheries, as well as all departments of the Army and Navy, are notably more efficient because of the work of the Bureau in co-operating with them. From the government, the



The Bureau of Standards from the Air

industries and the public have learned the same lesson, until now throughout the country exactness and standardization are replacing the chaos that was American industry.

Particularly in the war did the Bureau prove its unique value. In every field, research helped to win the war. In the manufacture of optical glass, the substitution of cotton for linen in aeroplane wings, in devices for sound-ranging, for synchronizing machine guns, in development of navigation instruments for air and water crafts, in the perfecting of airplane engines, the Bureau was only carrying through more rapidly to meet war needs investigations which in some cases it had been engaged in before we went to war. Dr. Stratton believes that this expansion of the Bureau's activities which came with the war, will not stop. The war taught industry and the public the lesson of what the scientist and the laboratory can do and they will continue to learn that lesson as the years go on.

Five different kinds of standards are taken care of by the Bureau. They are as follows: standards of measurements, of length, mass and time; the standard constants, such as the mechanical equivalents of heat, light and electricity; standards of quality as given in

specifications; standards of performance, such as the rating of engines and motors; and standards of practice, those of construction, installation and operation and the formulation of industrial and safety codes.

These five standards cover everything the Bureau does, but for purposes of efficient work, the problems are grouped not under these five heads but in nine technical departments, each of which does the work necessary in determining any one of the five. These nine technical divisions are briefly:

I. Division of Electricity in all its aspects.

II. Division of Weights and Measures, the scope of which extends from the determination of extremely accurate analytic weights to the large scale testing of railroad track scales and mining scales in the field.

III. Division of Heat and Thermometry, including calibration of temperature devices, as well as refrigeration machinery and internal combustion engines.

IV. Optical Division, including, radiometry, spectroscopy, colorimetry, polarimetry, etc.

V. Division of Chemistry, perhaps the most fundamental and inclusive division in the Bureau.

VI. Division of Mechanical Appliances and Engineering Instruments, a small but highly important division, which tests and standardizes pressure gages, gas and electric meters, aero instruments and similar delicate and exact instruments.

VII. Division of Structural, Miscellaneous and Engineering Materials, the department which on a large scale is most concerned with American industry. This division takes all problems concerned with steel, wood, cement, concrete, lime, leather, rubber, textiles and paper, and not only tests but standardizes, invents, and regulates production.

VIII. Division of Metallurgy covers all phases of the working of metals.

IX. Division of Ceramics, which has developed processes for the manufacture of optical glass, clay products, refractories and enamels.

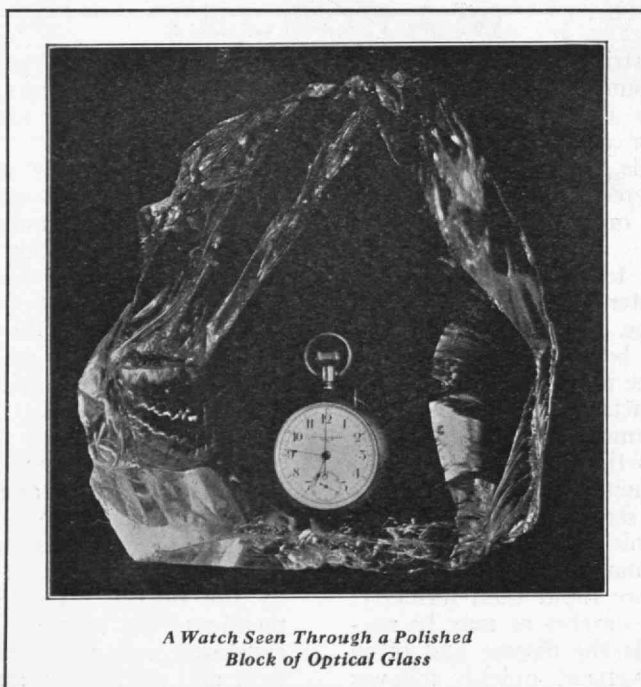
The services of the Bureau are, naturally, free to all departments of the Federal government and to the state governments as well. Wherever, as in munitions work, absolute standardization and interchangeability were required, the Bureau's work in manufacturing block gages, previously made by only one firm in Europe, and distributing them throughout American shops making the same munitions product was of incalculable value for efficiency during the war and for the education of the American public as to its necessity.

There can be seen in the dozen laboratories of the Bureau some interesting and unique pieces of apparatus. Among them are the national and international standards of electric measurement, and the fundamental measures of the meter and kilogram, duplicates of the international standards in Paris,

from our legal pound and yard are calculated. There can be seen a special sealed laboratory chamber wherein airplane engines may be tested under actual flying conditions of low atmospheric pressure and temperature. The Bureau has also heavy box cars, with weights up to 100,000 lbs. for calibrating railroad track scales, and similar motor trucks, for testing mine scales, that travel to mines often inaccessible by any other means. There can be seen two wind tunnels for aeronautic research, with wind velocities of 90 miles per hour and 190 miles per hour respectively, with balances fitted to take care of sections of heavy motors as well as of the lightest models of aerofoils. The Bureau also houses small but practicable rubber and paper mills as well as a complete set of cotton mill machinery, a machine for testing the actual wear and tear on automobile tires of road work over long distances, a complete experimental foundry for metallurgical work, with electric rolling mill and forging press; a ceramic laboratory for the manufacture of glass pots and optical glass, which reached a production of two tons of high-grade glass per month during war time, and many other interesting and unusual pieces of apparatus.

As many are the interesting problems worked out by the Bureau recently, particularly during the war. A radio direction finder for long distances, gage blocks and chronometers made for the first time in this country, the standardization of gasoline pumps, the development of special photographic plates for aerial camera work, plates specially sensitive to the longer red waves in the spectrum and so not affected by fog, mist or smoke, producing much clearer pictures and serving admirably to detect camouflage; work in colorimetry, signaling by invisible radiations and the detection of such signaling, the improvement of high power searchlights; work on balloon gases, substitutes for platinum in chemical work; research on concrete, especially the production of a strong, light-weight concrete for the Shipping Board vessels, as well as the important discovery of the secrets of the European makers of optical glass and the beginning thereby of a new American industry. The Bureau also runs two of the largest precision testing machines in the world.

These are only a few of the wonderful things done by the Bureau of Standards in its brief life of twenty years. In conclusion, it may be said that any description of the Bureau's work becomes obsolete almost as soon as it is written, so great is the progress, so rapid the improvement. But, as all who know the Bureau agree, one man keeps his hand on the pulse of the whole works, one man knows all that is going on, one man, in short, is probably most responsible for this extraordinary progress, the director who is leaving the institution he has built up to undertake the Presidency of the Massachusetts Institute of Technology.



A Watch Seen Through a Polished Block of Optical Glass

The President of Tech

A Brief Sketch of the Man and His Works

Members of the Corporation on October 11, ratified the appointment of Dr. Samuel Wesley Stratton, at present director of the Bureau of Standards in Washington, as President of the Institute, to take effect January 1, 1923; the vote being passed at 3:28 p. m. Frederick P. Fish presided at the meeting in the absence of Acting President Dr. Elihu Thomson, the ratification being moved by George Wigglesworth, an ex-treasurer of the Institute, and seconded immediately by over half of those present. The appointment was made by the Executive Committee at its meeting on September 19.

Dr. Stratton was elected after diligent search among available men, and his qualifications are felt to be admirable for the office he will occupy. He is a man of broad culture in his particular field. He was born in Litchfield, Illinois, July 18, 1861, and received his B. S. degree in mechanical engineering at the University of Illinois in 1884. After graduation, he remained at the University until 1892, during which time he had become professor of physics and electrical engineering. In 1892, he went to the University of Chicago, where he occupied successively the positions of assistant professor, associate professor and professor of physics. Here he remained until he was called to Washington as director of the Bureau of Standards in 1901, and here his most notable work in organization has been achieved.

Previous to this time, an office of weights and measures, consisting of three or four employees, had been maintained in the United States Coast Service of the Treasury Department. These men were chiefly occupied in testing weights and measures utilized in the Customs Service and the standards used by the Coast Service in its geodetic work. From this limited beginning, Dr. Stratton has built up a bureau consisting of a dozen large buildings, with a staff of from 900 to 1000 men. This bureau has a well-established connection with the industries of the country, and is aiding them to introduce research work and precision of method where guesswork and rule of thumb were employed before. Because of the vital necessity of prevision in the standards of the research work of scientific institutions, the bureau has worked out a close connection with many technical schools. Through the bureau's investigations and experiments the properties on which the quality of the leading building and miscellaneous materials used by industry depend, have been determined, so that it has established standards respected by both manufacturer and user. Under Dr. Stratton the bureau has become a sort of referee in many matters pertaining to standards of measurement, the properties of materials and the utility of devices. Dr. Stratton, through his research in this direction, has been able to effect tremendous economies for the government, enough more than to justify the bureau's organization, but this has been found insignificant in comparison with the value of the bureau to the public.

In order to facilitate handling the vast amount of work which it is called upon to do, Dr. Stratton has organized the bureau into nine departments, each concerned only with a special subject. In its work as a whole, the bureau touches almost every phase of human activity. It has been responsible for the inauguration

of an entirely new industry in this country, that of the manufacture of optical glass. After the outbreak of the World War, the supply of this material was of course shut off. Dr. Stratton in two and a half years was making optical glass in the experimental plant of the bureau, and had placed the information requisite for this manufacture freely available for all interested glass manufacturers. As a result, America has been able to produce its own supply of a material for which it was previously dependent altogether on Germany.

The prominent part taken by Technology in the development of aeronautics will find appreciation in Dr. Stratton. Under his direction the Bureau of Standards has closely co-operated with both the army and the navy in aeronautic work, and many devices were tested out and experiments conducted which have been of the utmost value in the conquest of the air. Dr. Stratton will find at Tech two wind tunnels for the testing of airplanes modeled after one he had constructed in the Bureau of Standards.

In recognition of Dr. Stratton's achievements in the Bureau, many honors have been awarded him. In 1903, he received the degree of Doctor of Engineering from the University of Illinois, and the degree of Doctor of Science from the Western University of Pennsylvania. In 1908, the University of Cambridge, England, gave him the degree of Doctor of Science, and Yale followed with the same degree in 1919. In 1909, he was made a Chevalier of the Legion of Honor. He has also received the Elliott Cresson Medal of Merit from the Franklin Institute, and the welfare medal of the National Academy of Sciences.

Dr. Stratton has always been interested in military tactics, and took an active part in the military drill of the University of Illinois when he was a student. When he went to the University of Chicago he assisted in organizing the naval militia in Chicago, and his conclusion that men with almost any kind of technical training would be useful on the huge battleship machine enabled him to put in successful operation his own technical knowledge. Consequently, he accepted the command of one of the four divisions constituting the naval militia battalion, and at the outbreak of war with Spain his division, consisting of 100 men all familiar with the life and duties on shipboard, was composed of skilled artisans in some field useful to the service. Dr. Stratton was commissioned first lieutenant in the navy and put in command of the entire battalion which had been enlisted in the regular service. He was attached first to the naval base at Key West, then as watch and division officer on Commodore Reaney's flagship at the naval base at Key West, and finally to the battleship *Texas* when she came north after the battle of Santiago. His practical experience in the navy proved of value to Dr. Stratton later in the co-operation between this branch of the service and the Bureau of Standards.

Dr. Stratton's government activities, aside from the direction of the Bureau of Standards, have covered a wide scope. He was a member of the Interdepartmental Board of the Council of National Defense, a member of the National Advisory Committee for Aeronautics, the United States representative on the International Committee of Weights and Measures, a

member of the Interdepartmental Board on Ice Observation and Patrol, and a member of the American section of the Standardization Committee, International Chamber of Commerce. His interest in mechanics and physics has made him a valued member of the National Academy of Sciences, the National Research Council, the American Philosophical Society, the American Association for the Advancement of Science, the Washington Academy of Science, the American Institute of Electrical Engineers, the American Society of

Mechanical Engineers and the American Society for Testing Materials. He is a hard worker, but popular among his associates, and in Washington is a member of the Cosmos Club, the Chevy Chase Club and the Army and Navy Club. He is also an honorary member of the Societies of Sigma Xi and Tau Beta Pi. He has expressed himself as intensely interested in undergraduate activities, and is looking forward to his residence in the president's house at Technology. He is unmarried.

Fraternity Standings

*Showing the Relative Positions of the Chapters at Technology
for the past year and a half*

The question of the scholastic standing of the fraternities installed at Technology has been exciting great interest in the past few years. Three times during the past 18 months, these standings have been officially computed by the offices of the Dean and the Registrar. The table below shows the standing of all Technology chapters as averaged for these past three times.

The numerical position attained by the chapters in June, 1922, is shown by the first column of figures, but the names are arranged according to the excellence of the "cross-country" record of the chapter. The chapter having accumulated the smallest number of points as a total of the three listings, stands first.

The June standings were computed by a careful scrutiny of the record of every fraternity man in the Institute. The excellence of each man's marks was multiplied by the number of hours he carried, so that a balance might be struck, taking into account the quantity and the quality of his work. When these figures were obtained for every man in one fraternity, they were averaged. After this average had been completed for every fraternity, the fraternities were ranked in the descending order of their scholastic excellence. It is interesting to note the fluctuations of position which some chapters have experienced.

	Total	Position June, 1922	Position Dec., 1921	Position June, 1921
1. Tau Delta Phi	13	3	7	3
2. Zeta Beta Tau	13	9	3	1
3. Delta Psi	15	2	5	8
4. Sigma Alpha Mu	22	5	15	2
5. Sigma Alpha Epsilon	22	8	8	6
6. Theta Chi	26	15	1	10
7. Chi Phi	27	4	19	4
8. Sigma Chi	29	16	2	11
9. Phi Beta Epsilon	31	11	6	14
10. Alpha Tau Omega	31	17	9	5
11. Lambda Phi	34	10	17	7
12. Delta Kappa Epsilon	38	12	4	22
13. Beta Theta Pi	40	14	10	16
14. Phi Kappa Sigma	41	6	16	19
15. Phi Beta Delta	45	7	14	24
16. Phi Kappa	47	22	13	12
17. Delta Tau Delta	53	21	11	21
18. Lambda Chi Alpha	53	24	20	9
19. Phi Gamma Delta	55	19	23	13
20. Delta Upsilon	55	20	12	23
21. Kappa Sigma	58	18	22	18
22. Theta Delta Chi	59	26	18	15
23. Theta Xi	65	27	21	17
24. Phi Sigma Kappa	68	26	18	15
Tau Epsilon Phi		1	*	*
Sigma Nu		13	†	†
Alpha Mu Sigma		25	*	*
Phi Sigma Delta		28	25	*

* No standing reported.
† Chapter established 1922.

Over the Wires

Telegraphic comment of some of the country's most prominent educators

Dr. Stratton's official telegram of acceptance, addressed to Mr. Everett Morse, Treasurer of the Institute.

I greatly appreciate the interest you and other members of the Committee have taken in my appointment. I am looking forward to the work with much pleasure and feel that your co-operation will be of great assistance in making it a success.

Sincerely yours,
S. W. Stratton

THE TECHNOLOGY REVIEW

As the former colleague of Dr. Stratton I heartily congratulate the Institute on his election as President. He will bring to his new duties high ideals, wide learning, reviving energy and remarkable ability in developing the interests confided to his charge.

JAMES R. ANGELL,
President of Yale.

THE TECHNOLOGY REVIEW

Your telegram announcing the election of Dr. Samuel Wesley Stratton to the Presidency of M. I. T. is received. I wish your great Institution and Dr. Stratton every possible success in this connection. Dr. Stratton's past experiences can all be made available in meeting the great responsibilities of the Presidency of the Institute.

ALEX. C. HUMPHREYS,
President of Stevens Institute of Technology.

THE TECHNOLOGY REVIEW

I learn with great pleasure of the election of Dr. Stratton to the Presidency of the Massachusetts Institute of Technology and earnestly wish for that Institution the greatest possible measure of scientific and educational usefulness and advance under his distinguished and experienced leadership.

NICHOLAS MURRAY BUTLER,
President, Columbia University.

THE TECHNOLOGY REVIEW

I congratulate the Institute of Technology and Dr. Stratton on his election to the Presidency. His experience as a teacher and as administrator of a great scientific bureau and his interest in the promotion of research all go to qualify him admirably for the duties of his position. It is significant that a man who has devoted his life mainly to the promotion of research should be chosen to the presidency of this great Institution. Such a selection presages emphasis upon investigation in science and engineering in ways that will mean much for the economic

progress of Massachusetts and the country. The trustees of the Institute of Technology have made a wise choice.

DAVID KINLEY,
President, University of Illinois.

THE TECHNOLOGY REVIEW

Professor S. W. Stratton was a member of the staff of the department of physics in the University of Chicago from 1892 to 1901. He was actively concerned in drafting the plans for the Bureau of Standards of which he became director on its organization. As a teacher, as an accomplished scholar in science, as an administrator, he has always been eminently successful. He will bring to the Institute ripe experience in all forms of the applications of science, tireless energy and thoroughly human qualities. I cordially congratulate the Institute on what I regard as a fortunate selection.

HARRY PRATT JOHNSON,
President, University of Chicago.

THE TECHNOLOGY REVIEW

I wish to express for Princeton University as well as for myself our congratulations to the Massachusetts Institute of Technology upon the Election to the Presidency of Dr. Stratton. Our best wishes for the continued prosperity of the Institute.

JOHN GREER HIBBEN,
President, Princeton University.

THE TECHNOLOGY REVIEW

The choice of Dr. S. W. Stratton by the corporation of Massachusetts Institute of Technology as President is one which will receive the widest approval. Dr. Stratton is a man of great force and energy, an immoderate worker and an unusually able and successful administrator. In felicitating the Institute on Dr. Stratton's appointment, I heartily wish my personal acquaintance with him were close enough to give me the right to say more on the personal side.

ERNEST FOX NICHOLS.

An exclusive statement to the Technology Review:

"Doctor Stratton is admirably qualified for the Presidency of the Massachusetts Institute of Technology not only as an administrator but also because of his distinctive familiarity, obtained while building up the finest physical laboratory in the world, with the needs of American industry and engineering and with that relatively new field of large importance to the future — industrial chemistry. While on one hand there is every reason to deplore his loss from the government's service, on the other hand there is every reason to bespeak an even larger success for the Massachusetts Institute of Technology with him as its president."

Herbert Hoover, *Secretary of Commerce*

Flying Through Europe

It can hardly be said that there is anything exclusive about going to Europe. The British immigration statistics show that 75,236 citizens of the United States landed in the British Isles during 1921, and



Ready to Start from Paris to Brussels

early returns indicated that 1922 will run far ahead of its immediate predecessor in displaying the wandering tendencies of the American. Two years ago it was possible to find parts of Europe where American tourists were rare

enough, so that those who did arrive there could feel something of the spirit of adventurers on little-known paths, but there are no such spots to-day. The Ritz in London and the Crillon in Paris, the Adlon in Berlin and the Imperial in Vienna, the Victoria in Amsterdam and the Bristol in Warsaw, with their luxurious counterparts in every city from the North Cape to the Golden Horn, resound with English spoken in the accents of New York and New Orleans and Bangor and Butte, and those marvelous linguists who serve as head porters stand constant siege from new arrivals, Americans coming singly and in battalions and demanding rooms with private baths in hotels already filled to overflowing. In the largest and most famous of Parisian revue theaters the jests phrased in French are received with the blank silence of non-comprehension, while the occasional attempts at English gain quick and sympathetic response from the audience.

Notwithstanding all this, every American who joins in this modern pilgrimage comes back believing himself charged with a mission to spread the real truth regarding the present state of Europe as it has been revealed to him alone, and he misses no opportunity to impart his views, orally or in print, to all who can be persuaded to listen or read. It is perhaps natural that it should be so, for a traveler who is moderately observant can hardly help being struck with many things which seem radically out of accord with the printed statements of special correspondents and other supposed authorities, and the temptation to rise up in the forum and contradict those whose voices have already been heard there becomes irresistible. That temptation forms my excuse for committing to writing the views of yet another American wanderer, at least so far as they touch on economics.

I did not go to Europe primarily to study economics. The development of commercial flying in that continent during the past three years has been so great that it seemed the duty of an aeronautical engineer to go and seek first-hand information on the operations of the air lines. Then, too, the success which the Germans had obtained in their glider competitions in

By E. P. WARNER, '17
*Associate Professor of
Aeronautical Engineering, M. I. T.*

1920 and 1921 seemed worthy of further investigation. As newspaper reports of the Rhön meeting of August,

1922, have made evident the subject proved productive of interest far beyond any anticipation. My interest in the glider contests was, of course, especially heightened by the entry in the French meet of a machine built by a group of undergraduates at the Institute, members of the Aeronautical Engineering Society, and piloted in France by Mr. E. T. Allen, a former Army airplane test pilot and now a student in Course II.

The logical way to investigate commercial flying seemed to be to fly, traveling as an ordinary passenger and endeavoring to capture the passenger's viewpoint. With that end in view, I traveled a little less than two thousand miles by air, choosing the airplane in preference to a train wherever an airplane was to be had.

After two weeks spent in and around London, reacquiring the ability to say "lift" and "luggage van" and "laboratory" and "aluminium," so that I might,

at least, render myself comprehensible to the British, even if my nationality remained evident from my accent, with intervals of examination into the very extensive aeronautical research facilities controlled by the British government and with frequent orgies of purchasing in the book-shops around Charing Cross and in Baker Street, the latter famous as the site of the rooms whence Mr. Sherlock Holmes and Dr. Watson used to sally forth for their battles, I made my first air journey. The London-Paris route, which I chose for my initiation into European air travel, is the most popular of all those now operating, so I was not surprised to find that the eight-passenger airplane, in which I had taken passage, had only one vacant seat. I was a little astonished, however, to find that five of the seven travelers were Americans, but a more extended experience taught me that that proportion was quite normal, as the air lines of Europe, and particularly those

across the Channel, depend largely on the unfailing supply of American tourists to enable them to show a profit.

It is unnecessary to describe the trip. Many of the readers of this magazine have made it, and those who have not, should certainly do so, if they visit Europe.

The London-Paris lines unquestionably represent the highest point that air travel has reached up to the present time. The greatest novelty, in this particular flight, setting it aside from all previous aerial experiences, was the presence in the cabin of a steward, a very small boy whose assurances that he was above the compulsory



*A German Glider
in Flight*



Loading Baggage for London

school age of fourteen years were received with some scepticism by the passengers. While we were passing over the Channel, three thousand feet up, the youth startled us by producing from some recess of the cabin an assortment of dishes and boxes and thermos bottles and passing along the aisle with the announcement that tea was served, an unexpected but much appreciated refinement. The arrival at Le Bourget took place two hours and six minutes after the departure from Croydon, and the total time from a hotel in London to one in Paris, was three hours and a half, a distinct improvement over the train and boat. The airplane company provided the most luxurious of automobiles to carry us between aerodrome and city, and the customs and passport formalities were reduced to a minimum, most of the baggage being passed by the inspector without even the most cursory examination. The whole business was finished in ten minutes, a welcome change after having stood in line on the deck of the *Maurelania*, a few days previously, for two hours and a half before the British officials decided that the stability of the United Kingdom would not be imperilled by allowing us to land. It was likewise a strong contrast with experiences later to be undergone when crossing certain Central European frontiers by train. Whatever may be alleged against aerial transport, there is no doubt that it is the most convenient and in some respects the most comfortable, as well as the quickest, method of getting from place to place.

A week was devoted to renewing old acquaintances in Paris, and then I went on to Amsterdam by air, with a brief halt at Brussels. The journey from Paris to Brussels was made in a twelve-passenger biplane, carrying only one passenger in addition to myself, a condition not very unusual on the continental air lines. From Brussels to Amsterdam a Fokker monoplane was used, and there were three passengers, all Americans.

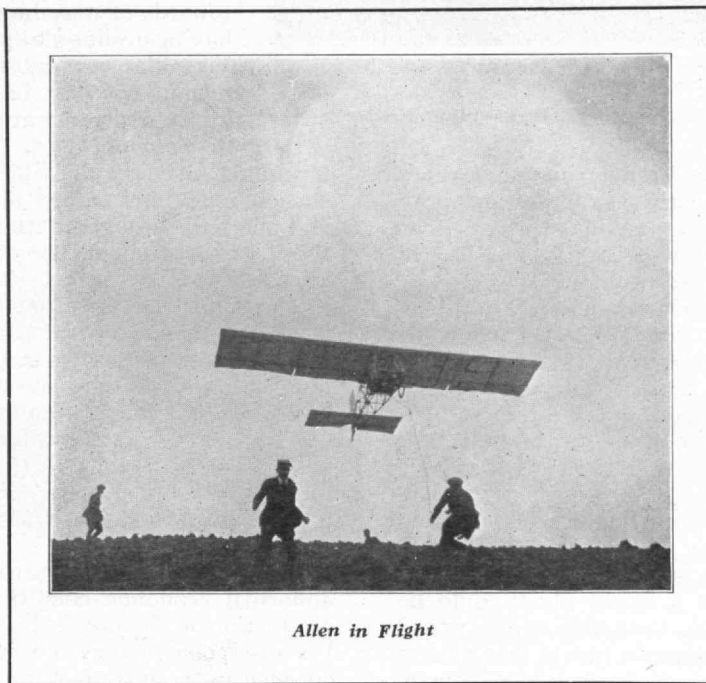
With no previous experience of Holland, I was a little fearful of linguistic difficulties, but they failed to appear. A Dutchman who does not know at least three languages is regarded as practically illiterate. It is safe to address questions to almost any passer-by in either English or German. If one of those tongues failed to elicit a response, the other nearly always succeeded. I have long admired the courage of those American and English tourists who travel all over the world without knowing a word of any language except their own, but the fact that they are able to do it and apparently find it quite unnecessary to take the trouble to study languages (I met an Englishman in Vienna who had been there four months without learning any German phrase except "Danke schön")

is the greatest possible tribute to European methods of language teaching. To establish a parallel, try to imagine a Frenchman coming to this country knowing no English, going about among Americans and doing business with them, and getting along so well that he would make no effort to learn any English except "thank you." We shall have to modify our educational system profoundly before that hypothetical case is likely to come true.

My stay in Amsterdam gave me a first inkling of economic troubles then just becoming apparent. Central European currencies were starting the hectic slide which was to continue with accelerated velocity during the next five weeks. Every hotel kept a dozen

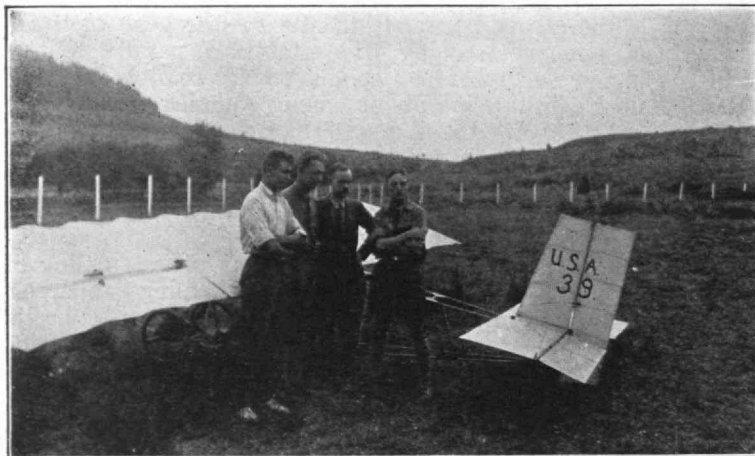
of the major foreign exchange rates posted on a blackboard over the desk, and exchange brokerage seemed to have become the major occupation of the city. Ordinary brokerage was fortified by a traffic in "souvenir currency," Russian soviet rubles being offered at one and a half florins a million.

My only aeronautical excursion out of Amsterdam took me to visit the Fokker factory at Veere, in Zeeland. I was fortunate enough to arrive on the day of the weekly fair and to obtain visual evidence that the wearing of standardized and picturesque costumes in Holland is not confined to the island of Marken, favored haunt of the tourist. Zeeland came



up to the loftiest expectations, the men in sabots, somber clothes, and round black caps, the women marked by the extravagance of their head-dresses and by extraordinary ornaments in the form of spirals of brass wire with pendent trefoils over their temples, the children dressed as exact miniatures of their elders.

The air line from Amsterdam to Bremen has been abandoned, apparently, as the result of disagreement as to the auspices under which it was to be exploited, and I therefore had to travel to Berlin by train from Flushing. My few days in Berlin were devoted largely to sight-seeing, and to the contemplation of bewildering economic contradictions. With factories running full time, with goods being produced at prices unbelievably low in terms of a gold standard currency, nevertheless, despondency over the future was everywhere manifest and there were more beggars on the streets than I have ever seen elsewhere. London has its sidewalk artists, more plentiful since the war than before and most of them wearing the badge of the discharged and wounded soldier, and many of the inhabitants of Vienna have no occupation left except that of mendicancy; but no other city that I have visited can equal the pathetic rank of mutilated ex-soldiers, many of them still in the imperial army uniform, who sit pressed against the walls along the Unter den Linden and hold out their caps for the coins of the passer-by.



The American Glider Crew

Left to right: Lee Agnew, O. C. Koppen, E. T. Allen and H. C. Karcher

One appreciates the meaning of a depreciated currency very forcibly on seeing the extravagant joy and gratitude with which a donation having an American equivalent of two or three cents is received by the beggar in any central European country.

As an illustration of my remark about low prices and of the danger to which many American industries will be subjected if the German export policy should change, the case of field glasses may be cited. The best eight-power glass made by the largest German manufacturer, generally considered the best glass in the world, was priced at the time of my visit at 9600 marks, equivalent to \$19.00. The same glass is sold in the United States for approximately \$80.00, and its export from Germany by tourists is strictly forbidden, but there seems to be nothing to prevent a sharp cut in export price to a figure which could be maintained for a considerable time and which would be a knock-out blow to the manufacture of field glasses in the United States. Such a rate war would, of course, be particularly easy for the Germans to carry on in connection with those articles in which little imported raw material is used, the production cost being chiefly represented by the wages of German labor, wages now ranging from five to ten cents an hour.

I had expected to do some flying in Germany, but that plan had to be abandoned, as all regular trips were abandoned as the result of a fatal accident, for the two days when I wanted to travel. I accordingly took the train from Berlin to Dresden and thence to Prague, the latter a seven-hour trip on which I began to get my first real view of Central Europe. Cars filled to overflowing, all the aisles jammed with people of a dozen races, we crowded in as best we could for the journey to the Czech border, where baggage had to be examined twice, first by Germans, looking for exports and then by Czech officials, seeking imports. The examination was finally completed, in a little over two hours, and a hot, excited, angry mob of people who had been rushing about frantically in search of lost baggage and denouncing the officials of both nations in all the tongues of Europe were finally turned loose to rush for the train to Prague.

Prague sees less of the tourist than any other of the great capitals, and one can wander for days without encountering a recent arrival

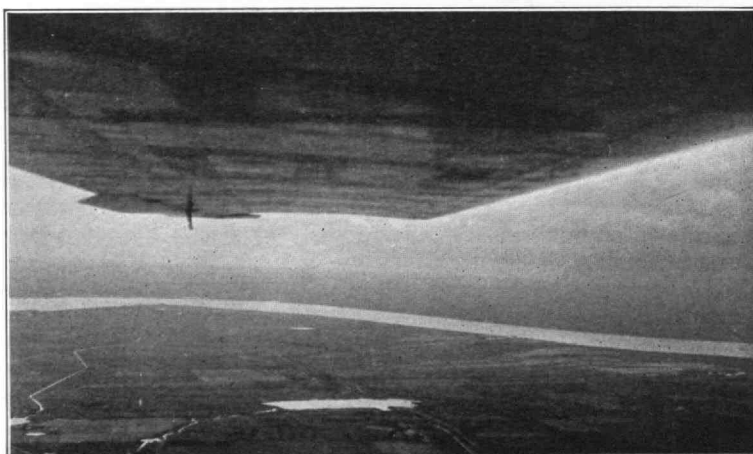
from America, but it is impossible to go far without running against Czechs who have labored in Chicago or Scranton or Birmingham and have returned to their own country only since the Hapsburg yoke has been raised. Practically all the people of the capital are bilingual, but German is not always spoken willingly, and I once had the experience, much less common now than a year or two ago, of seeing a clerk in a bank turn his back in scorn and walk away because I addressed him in German rather than in Czech.

The American who makes himself known as such, can count on a warm welcome in Prague, for, however the friendliness of other nations towards us may have cooled as a result of our having declined to participate in the Treaty of Versailles and subsequent events, the Czechs remain not only faithful friends, but grateful for the assistance given during their struggle for freedom and since. The two principal railroad

terminals, formerly the State and the Francis Joseph stations, are now named after Wilson and Masaryk, and one sees throughout the city portraits or busts of those two statesmen, the entwined colors of Czechoslovakia and the United States hanging over them.

The industrial situation in Prague is a little disheartening in some respects at present, but the shining fact that the Czech government has resisted all temptation to establish its currency on a waste-paper basis, and has made a conscientious effort to pay its way out of taxes rather than out of the product of a printing-press, stands forth as the most encouraging factor in the finance of Central Europe. Industrial depression in a state so wisely and firmly guided can only be temporary.

Despite momentary setbacks resulting from the abnormal economic conditions in neighboring states, production in Prague is by no means at a standstill. I visited one factory where six thousand men were engaged in the manufacture of locomotives, motor cars and tracks, Diesel engines, and electrical machinery. Running with an apparent efficiency of method which would be creditable anywhere in the world and using machine tools chosen from the product of six countries (including a number from America), the company had recently been successful in securing several important orders for locomotives for southeastern Europe in competition with German and other firms. The



Flying Over Holland

Prague Technical School has five thousand students, including about five hundred Russians. The school's laboratories have been remodelled and greatly extended since the war, and now include equipment of a quality and size fairly representing by a compression testing machine with a capacity of 2,200,000 lbs. and taking a column 23 feet long. Incidentally, that heroically dimensioned testing machine was itself built in Prague. Since all the instruction in the Technical School is now given in Czech, it is necessary to give a great deal of attention to the development of technical literature in that language, and numerous standard American texts on engineering have been translated.

Leaving Prague, I took passage by airplane for Vienna. Unfortunately, however, the engine of the airplane began to misbehave a short time after the start of the flight and grew rapidly worse, until the

Going to the bank, as soon as it opened, in order that I might draw on my letter of credit, I found that the time required for that superficially simple operation, which had been rising steadily at each stop since London, had here reached the astonishing figure of two hours and a quarter, including half an hour spent standing in line at the first bank I tried, only to be informed that the currency available for letters of credit was exhausted and there would be no more until next week. The second trial was more successful, and I got a wad of 10,000-crown notes, large enough to pack all my pockets in exchange for twenty-five dollars, but only after waiting before five different windows while languid clerks made records of every operation in longhand and in sextuplicate, finally making a notation on the letter of credit and passing it on to another clerk at another window where the same maneuvers were repeated. Roughly speaking,



*The Forced Landing—Thirty Seconds After
No Casualties to Report*



*The Forced Landing—Three Minutes After
Showing the Disappointed Peasantry*

pilot finally decided to descend in a wheat-field a little less than half-way to our intended destination. No one had been visible from the air as we spiralled downward, but within five minutes after landing, a fair percentage of the population of Czecho-Slovakia arrived on the scene and, like all crowds arriving at the location of a forced landing all over the world, seemed much disappointed that the pilot and myself were not killed. The incoming peasants soon began to climb over the airplane, and the attempt to keep them off produced a state of intense linguistic strain, as the pilot spoke only French and the peasants understood only Czech. Soon, however, we found one of them who knew German as well, and we conveyed our wants to the crowd by a process of multiple interpretation from the pilot to me to the German-speaking peasant, who then climbed up on the step of the airplane fuselage and made a speech in Czech to his compatriots. Ultimately, we secured an automobile to transport ourselves and our baggage to the nearest town, eight miles away, and got a train out of there for Vienna at one o'clock the next morning.

Arriving in Vienna, at six a. m., I was greeted by an Austrian official with a demand for a municipal traveler's tax of nine thousand kronen. I despairingly offered a five-franc note, that being the only European currency that I had left, after having met the expenses of the previous day's experience, and promptly received seven thousand kronen in change.

the time to complete a banking transaction is an exponential function of the distance southeast of London.

Vienna presents a brave face to the tourist, but it is a sad city for all that. With all the neighboring states distrustful of Austria and of each other, with no industry or agriculture commensurate with internal consumption, with a government totally unable to support itself, except by continuing inflation of the currency, Austria is a tottering state and its capital is a dying city with little hope in sight. Not the least unfortunate feature of the situation is the tourist (his name is legion) who confines his observations to the art museums and the Hotel Bristol and then comes home to broadcast the information that Vienna is a beautiful city and that there is no economic distress there,—by which he apparently meant that he was able to get a good dinner with champagne for the equivalent of eighty cents, and that nothing distressed him personally. He forgets to mention that the wages of an Austrian workingman are from six to eight dollars a month. It would be very desirable to enact a law forbidding any foreign visitors to leave the city before they had made a tour of inspection of some of the hospitals and child-feeding centers maintained by the British and American Quakers, and soon to be abandoned because of lack of funds to carry on all the work to which the wonderful women who preside over the Quaker relief organization have set their hands.

It is impossible to say enough in praise of that work, and money sent to 16, Singerstrasse, Vienna, or to the Friends' headquarters in this country, will be efficiently applied where it is very badly needed.

The collapse of the Austrian currency has been so much discussed in print that it is difficult to contribute anything new, either in the way of anecdote or as solution of the problem. An important point which has not always been sufficiently emphasized, however, is the sharpness of the distinction to be made between articles produced by Austrian labor within the Austrian state and those which must be bought outside at world prices. Obviously, if Austria were self-supporting and did not have to import anything, there would be no necessary relation between prices and wages there and elsewhere. If a real economic barrier is raised around a country, the development of economic events in that country becomes entirely dis severed from anything that goes on outside its borders. No effective, economic barrier has been erected by Austria, and the result is that there are two distinct price-scales in Vienna, the imported articles being entirely out of the reach of all, except the tourist and the "Schieber," himself not infrequently a foreigner growing fat on Austria's misery. As an illustration, my notes show that I paid six thousand kronen apiece for linen collars, which have to be imported from Czecho-Slovakia, while dinner at a first-class restaurant, the menu being made up chiefly of Austrian products, cost only sixty-five hundred. A *London Times* purchased to read during dinner cost as much as the meal itself. The same disproportion exists throughout the whole range of commodity prices.

In Vienna, as in Prague, technical education has gone on regardless of obstacles. Notwithstanding the Austrian collapse, the Technische Hochschule in Vienna still musters 6800 students, of whom 118 are studying aeronautics. A large proportion of the students come from the classes whose fixed incomes have suffered most from the upheaval, and many of them are barely escaping starvation and are sleeping in parks and public buildings, but their work goes on unchecked.

Leaving Vienna, I flew straight through to Paris, with stops at Prague and Strasbourg. If the function of an air line be to save time for the travelers, there is no route which justifies its existence more thoroughly than this one. The best train time from Vienna to Paris is thirty-two hours, but the use of the airplane made it possible for me to breakfast at the Hotel Bristol and dine at the Café de la Paix, with an actual time in the air of eight hours and forty minutes.

I had only a single day in Paris before leaving for Clermont-Ferrand and the glider meet, where I met Mr. Allen and his three assistants, Otto C. Koppen, Lee Agnew, and L. C. Karcher. We went into camp with all the rest of the competitors, officials, correspondents, movie men, and miscellaneous hangers-on, the camp being located about twenty miles from Clermont and connected with that city by a highly intermittent bus service. The French Army had equipped the camp, and those of us who had not been overseas during the war had a chance to see now how the Army lived. We had everything, including perambulating shower-baths, which worked one day a week.

Allen was the only one of the score of pilots entered who had had any real gliding experience, and the other competitors seemed quite willing to have him

point the way. Starting on the third day of the meet and continuing through the sixth, he made a number of successful flights, and at the end of that time he was in the lead in all events and had had more time in the air than all the other competitors together. The machine which he was using was unfortunately damaged in a minor accident, chargeable to no fault of the pilot or of the glider itself, so that it was impossible to repair it on the spot. A second machine had been constructed in the Institute's shops and brought over, but only one entry had been made and the judges therefore declined to allow the second glider to make any official flights. The decision was regrettable, but nothing else could have been done under a strict interpretation of the rules. On an unofficial trial, the second machine made a duration of one minute and fifty seconds, which was almost exactly the same as the best time made by the first one.

The French meet lasted until August 20, but I had to leave two days early to go to Gersfeld for the closing days of the German competition. The competitors there were almost all students at German technical schools, and the newspapers have given extensive publicity in this country to the extraordinary records which some of them made. I unfortunately arrived a day too late to see Hentzen's two-hour flight and had to leave the day before the three-hour one, but I nevertheless saw some very fine performances by the same machine under conditions much less favorable than those which prevailed when the record was made. Surprisingly few foreigners took the rather tedious journey to Gersfeld to see the competition, only five Americans, two Englishman, three Dutchmen, and an Argentinian being present, and several of those staying only a few days and not all at the same time. Those of us who did get there were very well received and had a visit both pleasant and profitable.

Allen brought his glider to Gersfeld, but did not arrive until after my departure. He made several successful flights there, but later had the misfortune to wreck the machine and suffer some injuries as the result of a flight in rough weather.

From Gersfeld, I returned to Paris to spend a few days visiting airplane factories. The airplane industry is in a much more flourishing condition in France than anywhere else in the world, thanks to the encouragement offered by the government and the placing of extensive orders for the army. My brief stay in France was otherwise made notable in my memory only by a general strike which immobilized all the taxicabs in the city on the day on which it was necessary for me to move my many pieces of hand baggage from my hotel to the Le Bourget airport. It took three hours of search and the assistance of the entire hotel staff to find a vehicle. The baggage all went to Le Bourget because it is actually cheaper to send baggage from Paris to London by air than by land and sea. Paying excess charges on two hundred pounds of books carried by air saved both time and money over express shipment of the same parcels.

The flight from Paris to London was even more of an all-American venture than the initial journey in the other direction. I made it in a twin-engined machine with seven other passengers, and we were Americans to the last one. The most striking feature of the trip was provided by the mechanic and radio operator, who emerged from his compartment when we were half-way over, made his way down the aisle to one of the passengers, and said: "Mr. Robinson,

sir? London would like to speak to you on the telephone, sir." Mr. Robinson adjusted the receiving helmet on his head, and London got its wish, in an extended conversation. That seemed even a step beyond serving tea in flight.

The Paris-London trip ended my flying for the sum-

mer and four days later I was passing out of the Mersey, westward bound. If commercial flying continues to develop as rapidly as it has done in the last two years, another trip will be necessary in the near future to keep in touch with it, and there will be quite a new story to tell.

Professor Locke in Mexico

Prof. Chas. E. Locke of the Mining Department made a trip to Mexico during the summer vacation and took the opportunity to get in touch with various alumni. In El Paso, Texas, were found R. F. Manahan '03 and John R. Perkins '20. The former is with the American Smelting and Refining Co., and the latter is in the U. S. Army. R. A. Beckman '11 happened to be in this city, also, although his home is in Parral. He has been following mining from the investment side and was the original owner of the Erupcion, which has recently attracted considerable attention as a big new lead-silver mine in the state of Chihuahua.

While in the city of Chihuahua, Locke met J. G. Barry '07 and W. J. Deavitt '06, who are with the A. S. & R. Co. at the Santa Eulalia plant; he also met two former students, E. T. Steffian '21 and Miguel Marquez, Jr., '16, whose homes are in Chihuahua.

At Parral and in its environs are a number of Tech men, all of whom were seen, as follows: W. P. Schumacher '04, S. E. Reed '12, H. H. Sharp '12, Paul B. Lord '09, L. Wright '22, and O. A. Mills '22. Schumacher is in charge of the Santa Barbara operations and Lord is mine superintendent. Reed is in charge of the Parral unit and Sharp of the Veta Grande unit. Mills is with Schumacher and Wright with Sharp.

A very pleasant dinner was had at Santa Barbara with Schumacher, Mr. and Mrs. Lord, and Mills. C. A. Cassell '21 had been at Santa Barbara, but had left a few days previous, having received notice of the serious illness of his father.

Locke just missed seeing at Chihuahua, M. W. Hayward, '06, or, as the senoritas commonly called him in Mexico, "Dicky" Hayward, and also T. B. Holmes '06, who is operating at Cusihiuriachic. He was in Chihuahua the week before Locke arrived but did not reappear during his stay.

While spending a day in Bisbee and Douglas, Arizona, Locke met H. L. Norton '03, who is with the Phelps-Dodge Company. It so happened that Norton was going East to Boston to join his family on a vacation and he formed very pleasant company for Locke until Chicago. L. T. Buell '05, who is also with the Phelps-Dodge Company, had just left for Los Angeles for his vacation and was not seen.

Locke happened to arrive in Chicago on the day that the Technology crowd was holding its weekly lunch at the Engineers' Club and he sat in with them.

He reports that everywhere he found the Tech men eager for news of the Institute and without exception everyone inquired regarding the outlook for a new president in the near future.

Great Men of Radio

"Hiram Percy Maxim, '86, the son of Sir Hiram Maxim, noted inventor of automatic firearms, was born in Brooklyn, September 2, 1869. He received his technical education at Massachusetts Institute of Technology and has been identified with electrical manufacturing since its early days.

"He was introduced to the radio art by his son, Hamilton, in 1910. He mastered the code at the age of forty. Thus he has watched the development of radio fields through the eyes of a man of mature judgment. He was a pioneer radio amateur, and was among the first to be licensed by the government when the law of 1912 was enacted and put into force.

"Before the War, he conducted many experiments in long-distance, amateur radio communication. He operated station 1ZM in Hartford, Conn. After the war, his call was changed to 1AW. Since then, and in co-operation with the bureau of standards at Washington and the American Radio Relay League, he has con-

ducted the experiments to determine the cause of signal fading.

"His chosen field is sound, on which he is a national authority, his studies into the field having resulted in the invention of the Maxim silencer, not only familiar on rifles but finding multitudinous applications in industry, or motor-driven vessels, etc.

It was he who first conceived the idea of a national association of amateurs devoted to relaying and receiving of amateur radio messages. The American Radio Relay League was the organization which has received nation-wide recognition, and which is composed of thousands of radio amateurs devoted to their hobby.

Mr. Maxim was one of the members of the conference called by Mr. Hoover recently in Washington, to deliberate over the broadcasting situation. He represented the radio amateur, and did much to retain the status held by the radio amateur and the radio fan as well."

—N. Y. Evening Mail.

"G. Swope, Helper"

The rise of the Tech man who signed his first payroll thus in 1893

The recent rise of Gerard Swope, Technology '95, to the position of president of the General Electric Company is naturally an event of great interest not only to the other Tech alumni, but to present and future students and to the teaching staff as well. The warm friends he made by contact as a student from '91 to '95 will experience that sense of the justice and

logic of passing events which comes when the fates and reason seem in operating agreement. The older alumni and members of the Corporation, of which Mr. Swope is a member, will realize the added opportunities and recognition which have deservedly come to him, and the teaching staff will have one more of those examples, to which they like to refer and which the earnest student appreciates, of a fitting reward for strict and enthusiastic attention to the job. Mr. Swope's position has been earned by the well-established

method. This may sound like the "old prof" but Swope's is another of those cases where the yarns of his old age will probably be as full of the interesting things he did in the laboratories as of the street signs pilfered and lectures cut.

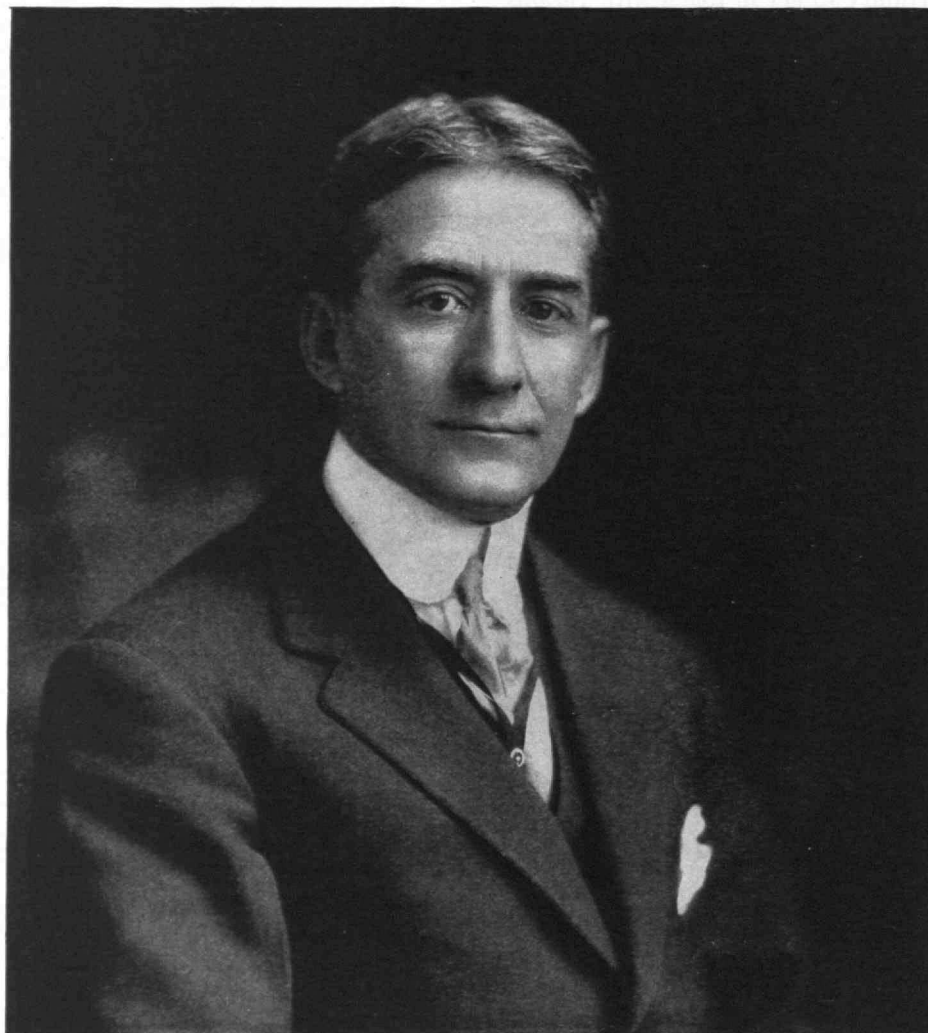
In order to get a truer perspective of the position which Mr. Swope now occupies, it may be well to look for a minute at what lies behind. Since about the time when William Barton Rogers talked of the importance

By WILLIS R. WHITNEY '90
*Director of the Research Laboratory
General Electric Company*

of technical education to a young but maturing country, and men were beginning to realize that we were not to remain forever tillers of the soil, the tendency has been towards the organization of industry.

James Russell Lowell, writing complainingly "On a Certain Condensation in Foreigners," in 1870, pointed out, in agreement with Carlyle, that there was

then no particular merit in our material prosperity, which was "due quite as much to the virtue of our continent as to our own." Till we had succeeded in some higher way than this, we had only the success of physical growth. "Our greatness, like that of enormous Russia, was greatness on the map — barbarian mass only, etc." and he added, "Perhaps it is the collective, not the individual humanity that is to have a chance of nobler development among us." Ever since that time, large and



GERALD SWOPE, '95
President of the General Electric Company
"In '93 he took a job in the repair shops . . . at a dollar a day."

ever larger groups of men have been co-operating in our productive enterprises. Corporate and co-operating industrial activity has not stopped its steady, onward growth for fifty years. There is no sign of cessation. The greatest good to the greatest number calls for the combined efforts of the greatest collections of capital and labor.

When Swope first went to Tech, the electric car line had just settled down from the storage battery type

and the underground third rail (both of which lived short lives in front of the old Rogers building) to the overhead trolley. No one calls that very ancient history, but in electrical matters history is being made rapidly. While Swope was at Tech, the Company of which he is now president was formed. The year Swope graduated, it did a business of twelve and a half millions, and in 1920 this had grown to over 275 millions. In '95 its factory floor space was something over a million square feet, but since then it has grown by an amount averaging nearly a million square feet a year, so that, if its president wanted now to walk through its floor area, and it was arranged in one aisle fifty feet wide, he would have about ninety miles to walk. As there are also over eighty thousand employees, it is probable that he can never very intimately know them all.

There is in Nature one periodic growth marked by the seasons. There is another marked by length of natural life, but there are growths in human affairs which, through all the others, show continuing upward or downward, maturing or decaying trend. Thus far, the growth of America's collective industry continues upward. Most industrial organizations are now so planned as to outlive any one of their parts. The history of the corner-store no longer depends solely on the number or qualifications of the proprietor's sons for that particular business. In modern industry, the entire efforts of groups of men are devoted to single contributing parts.

That group which devotes its whole effort to making some one product usually knows little or nothing of the procedure of selling it. In such an organization an active doctor of medicine, for example, may spend all his time doing medical work and training his successors to do better along lines which seldom seem connected with business at all. This growth of complexity is also a growth of general usefulness and a necessary part of a smoothly operating machine. The oversight and general planning of such a machine call for the broad training of men like Swope, who has served in turn in most of the divisions of the electrical industry.

Not so very long ago the president of an electric manufacturing company probably knew personally the purchasers of each street railway equipment, took a personal financial risk in the new railroad, had his photograph taken with the city fathers on the first car on the day of its installation, and answered the complaints made when the first snow clogged its motors. This activity could be described as diverting, but diversion is not an industrial aim. Nowadays, the specialist dominates every part of business, and the eight vice-presidents of the corporation of which Swope is now president may be looked at as so many super-specialists who, in turn, head groups of lesser specialists. The manufacturing has one head and the commercial branch another. Engineering, which in general precedes the manufacturing stage, is a separate group, just as are the law and patent divisions. One may look at the president of an organization composed of such groups, then, as a commanding officer who, knowing their separate contributions, co-ordinates them, as the commanding officer of an army co-ordinates infantry, artillery, air service, transport, etc.

Electricity is still in the position of a crusader, as everyone knows who realizes its continuing advance. The state of New York, under Governor Miller, is

undertaking to utilize the water power of its great barge canal. Rivers of the state have already been dammed by canal locks, and over each dam flows the normal river supply. This available, but heretofore wasted, energy is being turned into electricity for use as near as possible to its various points of production. This is a process which may in the future become very common. As the efficiency of production of electric energy from water courses is improved and as what we may call the geographical density of its possible utilization is increased, it will become more and more evident that falling water should be conserved and turned to useful purposes. The wider application of water power is but one of the obvious steps ahead of the great entrepreneurs of electricity. The electrification of railroads is another project which calls for unlimited foresight and large scale co-operation. The interlinking of the electrical networks of the country and the greater transformation of the energy of the coal at its source are steps which call for broad vision, analytical judgment, initiative, wise planning and successful execution. It is to such undertakings that Swope has been called.

Swope's earliest electrical work came during his course at Tech, when, in '93, he took a summer job, at a dollar a day, in the repair shops of the General Electric Company at Chicago. His next business experiences were gained with the Western Electric Company, with whom he was connected after graduation. After work in the shops he was transferred to the Power Apparatus Engineering Department as designing engineer. In 1899, he became sales representative for that Company at St. Louis and later became manager of the St. Louis offices. Here he continued until 1906, returning to Chicago in charge of the Department of Power Apparatus of the Western Electric Company. In 1908, he became General Sales Manager at New York, and vice-president and director in 1913.

During the war, a new department was built up at Washington which established a new system of purchasing war materials. This was called the office of Purchase, Storage and Traffic. General Goethals was appointed director and Swope became his chief assistant. The reorganization of this department of government undertaking exceeded anything done in peace times along these lines. Manufacturers all over the country needed help in getting their raw materials. Co-ordination was necessary in placing government orders. Transportation of raw material and finished goods had to be assisted, and suitable assembly and storage depots established here and abroad. This supply work called for an expenditure of nearly eight billion dollars.

No briefer summary nor better token of appreciation can be given than to quote the citation incident to the awarding of the Distinguished Service Medal to Mr. Swope by the President of the United States:

"For exceptionally meritorious and distinguished service.

As one of the principal advisers and assistants to the Director of Purchase, Storage and Traffic, he accomplished the task of working out the detailed plan for bringing under one head the direction and supervision of procurement, storage and issue of all commodities, and articles of equipment and supply needed for the Army. It was due to his foresight, ability, energy and loyal co-operation that the procurement program for the great Army of 1918

was successfully planned, and he assisted materially into carrying it into effect, thereby contributing directly to the success of the military program."

Among his other honors are the Medal of Chevalier of the Legion of Honor from the French Republic, and the insignia of the Order of the Rising Sun from Japan.

Swope was married to Miss Mary Dayton Hill, of New Brunswick, N. J., in 1901, and the family reminds one of that of Theodore Roosevelt, for they now have five strenuous boys.

In 1919, Mr. Swope joined the General Electric Company and became the first president of the International General Electric Company, in which are consolidated the export business and foreign interests of the Company. In the three years he has held this office he has encircled the globe and counts his business friends in every land. In such a position he has had a good opportunity to feel the world's pulse and to draw a picture of the position which American manufacturing organizations ought to assume.

Ever since his entrance at Tech it has been clear that in Swope are combined the traits of general balance with those of an enthusiast who is always attending to business.

In a short address before Schenectady foremen recently, Mr. Swope distinguished the aims of the Company by describing the claims of the shareholders, the employees, and the community. He said in part:

"As to the shareholders, we have a trust to administer. Large funds have been placed in our hands by them and we must see that we administer it well and that a fair return on this investment is made and that it is continuous . . . There is little to worry over in regard to the financial end of our business. My greatest concern is in the other two phases of our responsibility, that towards the employee and to the community at large. . . .

"The idea I want to convey to you is that the men who are working under pleasant conditions, amid satisfactory surroundings and under fair treatment, are going to do a better job than men who are not working under such conditions, and it is up to you men who are executives to bring about those conditions.

" . . . It seems to me there is a great responsibility and a great opportunity resting with the foremen and executives because the interpretation that the men place upon the Company is the interpretation that the foreman and executives bring before these men. In other words,

the Company is dependent upon you for the impressions given to the employees . . .

" . . . Our service to the community is going to be measured by our efficiency and our ability to produce a good article at a reasonable price that is going to contribute to the community's happiness and well-being. This can be done only by searching for better methods of doing work and stimulating our people to find better ways of doing things than have existed before."

A new sign of growth without change of policy is evinced to the layman by the recent developments in the General Electric organization. In 1892, success in electrical industry required the co-operation of the contending advocates of direct and alternating current development. Mr. Charles A. Coffin became the first president of the General Electric Company because he foresaw such necessity. He accomplished this combination and effected an organization into which he infused the essential components of men and capital for the largest electrical manufacturing project in America.

His business acumen was well supported by the technical force under Mr. E. W. Rice, under whose long leadership, as technical director, the Company established an enviable reputation for reliability, for forward-looking but sound engineering, and for high quality of workmanship. Mr. Rice, naturally, on the partial retirement of Mr. Coffin in 1913, became the second president of the Company.

It has been mainly along other lines that Mr. Swope's experience and successes have been won: While he was first trained in electrical engineering at Tech and knows well the fundamentals of that subject, his postgraduate work has been commercial in the broad sense; that is, organized service to the public. Of him, *Electrical Merchandising* well says:

"Among all electrical executives he stands pre-eminent as the exponent of a kind of thinking and a kind of work that has brought him international fame. High-pressure salesmanship, unswerving commercial purpose, refined efficiency in administration and indomitable will power held to work — these are the characteristics of Gerard Swope. And the surprise on his appointment as president of the General Electric Company came from the fact that this great organization with all its dominating traditions of engineering supremacy should have so conspicuously sought out this different kind of a man to be its chief."



Samuel Cate Prescott

An appreciation of Course VII's new head

Samuel Cate Prescott was born in South Hampton, N. H., of a sound old New England stock. He was educated at Sanborn Seminary, Kingston, N. H., and at the Institute, graduating in Course V in 1894. He began his career as a teacher almost at once in the Department of Biology under Professor Sedgwick, rising gradually to the ranks of Assistant Professor in 1903, of Associate Professor in 1909, and of Professor in 1914. On Professor Sedgwick's death, he was made Acting Head of Course VII and now takes up the position of permanent head of the department he has so long and faithfully served.

Professor Prescott has held an important place in the science of Bacteriology recognized by his choice as President of the Society of American Bacteriologists in 1919. He has made substantial contributions to the cause of Public Health as one of the authors of a standard work on the Elements of Water Bacteriology, and as an expert in many investigations and court cases relating to the sanitary quality of foods. During the war, he served with the rank of major in the Sanitary Corps, having charge of fundamental investigations of dehydration of foods and other related problems.

It is in the application of biology to industry, however, that Professor Prescott has rendered his most unique service; and in this field he is probably the leading scientific expert in the United States. In association with W. Lyman Underwood, he laid for the first time a sound basis for the bacteriological control of the canning industry. By his translation of Effront's "Enzymes" and by numerous other publications, he contributed to the technical development of the

BY C.-E. A. WINSLOW
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fermentation industries. As Director for many years of the Boston Bio-Chemical Laboratory, he trained an able staff of consultants who aided in the solution of innumerable technical problems of food production and food preservation. He was retained by the United Fruit Company for the study of diseases affecting the banana, which he carried to a successful conclusion; and, still more recently, he has been placed in charge of

a comprehensive series of investigations into the technical aspects of the fishery industry, which promises to prove of national significance. Under his direction Course VII will continue its unique work for the cause of Public Health, under a new agreement with Harvard by which the certificate of Public Health is reserved to the Institute, while students in either institution may take courses in the other. The Department will also, however, take a position of unquestioned leadership in the important new field of the application of biology to industry.

For more than a quarter of a century, Prescott was the loyal and devoted associate of Professor Sedgwick. He absorbed his spirit and his intellectual viewpoint and those of us who loved our old chief may rejoice in the fact that his teaching methods are faithfully preserved in the organization of Course VII of the present day. Professor Sedgwick in comparing two [of his

associates once said, "Oh, — — is a good lecturer; but Prescott is a teacher," — and coming from him, there could be no higher praise. Sam Prescott is a good teacher, a sound bacteriologist, a tireless worker, a patient, fair-minded, kindly, loyal son of M. I. T. His choice as the leader of Course VII crowns a career of effective service and promises much for the future.



Photo by Fay S. Lincoln

SAMUEL C. PRESCOTT

*"A good teacher, a sound bacteriologist, a tireless worker,
a patient, fair-minded, kindly, loyal son of M. I. T."*

Dr. Horwood Makes Tuberculosis Survey

The most inclusive survey of tuberculosis conditions ever conducted in Philadelphia is being made at the present time by Dr. Murray P. Horwood, professor of the department of biology and public health of

the Massachusetts Institute of Technology. Dr. Horwood, who is nationally recognized as an authority on public health, was called to this city by the Philadelphia Health Council and Tuberculosis Committee.

The survey was begun to determine the ways and facilities of detecting, caring for, and preventing tuberculosis in this vicinity. Dr. Horwood is working with the co-operation of Dr. C. Lincoln Furbush, of the city Department of Health, and Dr. Edward Martin, of the State Department of Health.

It is expected that all the figures will be ready for compilation within a few weeks. According to Dr. Horwood, his report will show tuberculosis figures by sexes, color, nationality, occupation, wards, etc. In this way, it will be possible for the Philadelphia Health Council and Tuberculosis Committee to plan its work among the people where it is most needed.

Dr. Horwood has so far made a study of all clinics handling tuberculosis cases. He has also visited and listed all the hospitals which take advanced cases of the disease, this latter for the purpose of determining the number of beds available for such patients.

In addition to visiting and inspecting the clinics and hospitals treating tuberculosis in Philadelphia, Dr. Horwood has made trips to the State sanatoria, namely, Hamburg, Mont Alto, Eaglesville, Malvern and White Haven.

He has studied the methods employed in the nutrition classes conducted by the Health Council in the public schools, and also the work done in the schools by the Division of Medical Inspection of Public Schools,

of the Department of Health. Nutrition work in the parochial schools has also been thoroughly studied by Dr. Horwood.

Another part of the work that has to be studied, with special reference to tuberculosis, are the vital statistic records of the city. The statistics for a period of ten years, 1912 to 1921, inclusive, were taken for compilation and reference.

The methods employed by the city to inspect milk and food stuffs are yet to be looked into, but after that is completed the so-called field work is over, and Dr. Horwood will begin writing his report.

When finished, it is expected to be the most complete study of the kind ever made for this city.

"We have some exceedingly interesting figures," Dr. Horwood said, "which will be available as soon as I have formally presented the report to the Philadelphia Health Council and Tuberculosis Committee. I am told that no survey of this extent and character has ever been made for Philadelphia, and since that is the case, the report should be very valuable to the agencies and organizations engaged in tuberculosis work."

The committee on the survey for the Health Council includes Dr. H. R. M. Landis, chairman; Dr. Paul Lewis, Saul Swaab and E. J. Lafferty.

—*Philadelphia Inquirer*.

William Cushing Edes, '76

William Cushing Edes, former chairman of the Alaskan Engineering Commission, whose death occurred on May 25, was one of the best known and most successful railroad location engineers in the West, having devoted a long and active lifetime to this branch of engineering. He was born at Bolton, Mass., in 1856; graduated from Massachusetts Institute of Technology with the Class of 1876, and after practicing his profession in Massachusetts for a few years, went to California in the late seventies. Entering the employ of the Southern Pacific R.R., he was identified with the location and construction of many of the main and branch lines built by that company. Among other work he was associated with William Hood, chief engineer of the Southern Pacific, in the location of that company's main line through Arizona, New Mexico and Texas. Later, he had charge of location of parts of the Southern Pacific's coast route, relocation of the main line in Nevada, and the location of difficult sections of the Central Pacific route over the Sierra Nevada Mountains.

For four years, he was associated with W. B. Storey as assistant chief engineer of San Francisco and San Joaquin Valley R.R. between Richmond and Bakersfield, now a division of the Santa Fe system. When the Southern Pacific and the Santa Fe decided to join in the construction of a single line that would tap the rich timber country along the northern California coast, the combination came about primarily because of the expense of building a suitable line for more than

100 miles in the canyon of the Eel River. This route is said to have been one of the most difficult pieces of railroad building ever undertaken in this country. Mr. Edes was selected to locate the joint route; his location was adopted, and construction was carried out under his supervision. Mr. Edes was chief engineer of this system, which connected Eureka with San Francisco, from 1907 to 1914.

In May of 1914, he was selected by President Wilson as chairman of the Alaskan Engineering Commission. He established headquarters at Anchorage, Alaska, and after considering three routes for the railroad to the interior, selected the one that he believed to be the most practical at a preliminary cost of slightly over half the amount appropriated for that work. Subsequent to the location phase of the Alaskan work, he divided his time between Alaska and Washington, his presence being required by various Senate committees. When the other two members of the commission resigned, one to become Governor of Alaska and the other to enlist in the World War, Mr. Edes was in full charge of and responsible for all the activities of the Alaskan project. After five years of service on the commission, and with the project well along toward completion, he resigned in December, 1919, to take a much-needed rest. From that time until his death, he made his home in California, devoting his attention, from time to time, to railroad engineering problems on which he was called into consultation.

—*Engineering News-Record*.

A Limitation of Numbers?

Actions and Reactions that developed when the President of Dartmouth spoke plain words

It still shocks a number of minds to be told that our colleges are crowded with vast numbers of men whose minds are such that their presence in college causes a great waste of time—their own and their teachers. President Ernest M. Hopkins of Dartmouth, whose college has become more crowded than he thinks is wise or proper, spoke plain words on this touching subject when Dartmouth opened in late September.

"The opportunities of the colleges," said President Hopkins, "should be increasingly reserved to the 'aristocracy of brains'—men intellectually eager and alert—if democracy is to be a 'quality product' rather than simply a quantity one, and if excellence and effectiveness are to displace the mediocrity toward which democracy has such a tendency to skid."

"Education is definitely a privilege and not at all a universal right," he said, and "because the funds for higher education are not limitless, it is necessary that a 'working theory' be sought to define the individuals who shall make up the group to whom, in justice to the public good, the privilege shall be extended and to specify those from whom the privilege should be withheld."

"Selection of applicants for admission to colleges," President Hopkins said, "is a two-fold necessity: on the one hand that men incapable of profiting by the advantages which the college offers, or indisposed, shall not be withdrawn from useful work to spend their time profitlessly, in idleness, acquiring false standards of living; and on the other hand that the contribution which the college is capable of making to the lives of competent men and, through them, to society, shall not be too largely lessened by the slackening of pace due to the presence of men indifferent, or wanting in capacity."

"We hear much of men seeking an education," he continued, "but too often they are only seeking membership in a social organization which has a reputation for affording an education from which reputation they expect to benefit."

Most of the commentators on Dr. Hopkins' words believed it discreet to disagree.

"Never were the words of a college president more unpersuasive in their academic rhetoric than those of President Ernest M. Hopkins of Dartmouth," said an editorial in the *Christian Register*.

It is the fashionable talk. These men show, in the main, how hard it is to live in the choice shade of collegiate quietude and its reserved delights without losing touch with that vast, unnumbered human kin who have never been aristocratic in any gifts, but who, in their common, even rude way, have looked with a vigorous quality of hope to better days for their children. These offspring, just because they are their offspring, subject to the laws of birth and breeding, are not like professors' children or geniuses. How hardly can the plain youth ascend the struggling scale even as it is now to a place of better living and usefulness. And is this way to be cut off?

President Hopkins is wrong from beginning to end. "Who-soever will, let him come." If the mediocre one cannot stand the pace, let him take the consequences. But if he has one talent and works it with heart and soul, give him place. The greatest need of a democracy is trained one-talent men and women. If our privately-endowed colleges cannot take care of our seeking youth, let us do it ourselves. Who sets himself to judge of the capacities of our rising generation? What authority is there for placing all emphasis on brains, that is, intellect? What of the discipline of the emotions, the will, and the gift for leadership that one often finds in valuable men who rank less in books than in affairs and among men? The colleges, as a rule, have never treated this kind of fellow decently. They assume too much that their variety of education is perfect, their standard of aristocracy is as fixed as natural law, their attitude to the ordinary person (who is 95 per cent. of the whole population) almost contemptuous, their idea of democracy that the less we have of it the better. That is what gets into our colleges.

For ourselves, we are not afraid of plain people and small talents. We find in them something great which the schools

somehow do not much reach, and thus, thank goodness, do not spoil. We would spur their ambition to the limit, closing never a door, and we would go out of our way ardently to plead the cause of an ordinary youth among them who has a will to get on, with the hope that he would learn more democracy in college from the violations of it, if it must be, that so easily beset the intellectual aristocracy. To descend to crass material things, is it not a fact that most of the endowments that now fill the college coffers were given and are given by practical men who would be excluded by this new academic pretension? There is only one aristocracy—we do not like the word—and that comes of service according to one's ability.

Mr. S. S. McClure likewise lined up in the opposition. He believes in "surrounding youth with temptations to do good."

"You cannot tell in their youth who are going to be the leaders," he said. "We have had twenty-nine Presidents of the United States, and nineteen were college men. Among the other ten who had no college training were Washington and Lincoln. That is one difficulty you would meet in an attempt to single out the intellectually eager and alert."

President Sidney E. Mezes of C. C. N. Y. qualified the issue:

"We are getting too many of one kind of students and too few of another. Many persons of great capacity and industry are not going to college, and others, who have neither capacity nor industry, are going. I suppose one reason that those of capacity and industry do not go is that they do not have the money or the opportunity at the right time. It is true that the colleges have some students who ought not to be there."

"There can never be too many men going to college," said the *New York Times*, "if those who do go are 'educable' and if the college really educates them when they go and does not lead them away from really productive work, out of sympathy with their families and with those who with their hands 'support the fabric of the world.' It will be a happier human society when every man can have all the intellectual opportunity that his mental equipment allows him to avail of, while at the same time making his contribution to the physical upkeep of the earth."

The *Boston Globe* falls back on comments about "character."

"Democracy (at least so much of it as we have) attempts to raise the level of the mass intelligence certainly to the estate of a grammar-school training. This undertaking is relatively new in the world; it is a thunderingly difficult enterprise, and we are only learning how to do it as we go. Naturally, we only make a part-way success of it."

"All talk of an 'aristocracy of brains' remains necessarily superficial. For higher education trains, and must train, mainly the conscious intelligence. But there is something that goes higher and deeper than conscious intelligence—too high and too deep for measuring—and that is personality. Beyond the conscious intelligence which education can discipline lies the something greater, which we call character. It is no respecter of birth, money, environment, intellectual agility or cultural training. It is the only winner in the race which ends only with life, and the age of high school and college is usually too early to decide who has it or has it not."

But the *Harvard Alumni Bulletin* is justly puzzled by how an estimate of "character" can rightly be made.

"Insofar as entrance requirements have been defined and enforced, there has always been a limitation of numbers. And insofar as these requirements have been wisely formulated, they have been designed to prevent the entrance of 'men incapable of profiting by the advantages which the college offers,' President Hopkins' remarks might, then, be taken to mean simply that entrance requirements should be raised, or that they should be so improved as to be more effective in accomplishing their object. If this were all that were meant, there would be no new issue involved. The novelty of the recent proposals is to be found elsewhere. It is proposed that the number admitted to a given institution should be absolutely

fixed regardless of the number of qualified applicants. This may mean one or both of two things.

"In the first place, it may mean that an admission committee should be invested with discretionary power to exclude regularly-qualified applicants. In other words there are to be two tests for admission: A formulated test applied impersonally to all-comers, and an unformulated test applied personally to those who meet the first test. And herein lies the first element of danger. Entrants are to be 'hand-picked.' Assuming the best of intentions on the part of entrance committees, it's difficult to see how such a method could be employed without favoritism, either in fact or in the opinion of the community. A committee empowered to choose on grounds of undefined and undefinable personal qualifications would almost inevitably prefer a certain type, a type conforming to its own local traditions and social bias. An institution so recruited over a period of years would gradually cease to be representative of American society-at-large. It would be neither democratic nor national."

It is obvious that the questions which Dr. Hopkins has raised confront Technology as urgently as they confront any institution. It is doubtful if any one longer believes that the measure of a man's fitness for Technology's unique curriculum can be measured by entrance examinations of three hours each.

Ever since the new buildings have been opened, they

have been under a heavy overload. At present, there are some 600 more students registered than, theoretically, the Institute has room for. Although the dissatisfaction with the entrance examination system is felt here as keenly as it is felt at other institutions, it is doubtful if Technology will ever subscribe to the "hand-picking" system. Sometimes you can tell by looking at him if a man can ever be a poet, but never, no never, can you tell by this method, if he can ever be a chemical engineer.

It is of interest to note that Technology is soon to undertake an experiment with the psychological examinations—the "nut tests" of recent wide-spread fame. Professor Charles L. Stone, of Dartmouth—the same Dartmouth which has provoked the storm recorded above is to give these tests to Institute freshmen and others interested sometime in November. No doubt the Institute will watch these with the greatest interest, in the hope that some day they may furnish a solution to the present difficulties of determining who is educable and who is not.

DR. RUSH ON CANCER CONTROL

The American Society for the Control of Cancer, which is conducting a campaign to instruct the public regarding the initial symptoms of the disease, so that it may be detected in its curable stage, has appointed Dr. James E. Rush, '12 of Pittsburg, as field director. During the next few months, Dr. Rush will devote his attention to Pennsylvania, Illinois and Iowa, where he will organize branches of the society.

Dr. Rush is a graduate of the Massachusetts Institute of Technology in Prof. Sedgwick's course of biology and public health. He has devoted much of his life to preventive medicine, and has taught biology in the Massachusetts Institute and bacteriology at the University of Wisconsin. He took his certificate of public health at the New York University in 1915. Since 1916, he has taught public health sanitation and engineering at the Carnegie Institute at Pittsburg. While thus occupied, he took his medical degree at the University of Pittsburg.

—N. Y. Evening Mail.

"A TECHNOLOGY BRIDGE"

A new \$5,000,000 War Memorial Bridge to replace the worn-out Harvard Bridge across the Charles River, is, in Mayor Curley's opinion, one of the city's most pressing needs, he told the City Planning Board, advisory committee of 200 Boston men and women.

Henry V. Hubbard, professor of landscape Architecture and City planning at Harvard, represented President Lowell in the latter's absence from the city. Acting President Thomson of M. I. T. and President Henry Lefavour of Simmons were among the distinguished guests.

—Boston Evening Globe.

CLEOFAN OR COSMOPOLITAN CLUB

Among the first cabin passengers on the *Ryndam* of the Holland-American Line, which arrived yesterday at Hoboken from Rotterdam via Boulogne and Plymouth, were fifteen Belgian school teachers to matriculate in Columbia University and the Massachusetts Institute of Technology. Ten of the young women will remain in New York and five will go to Boston.

The young Belgian school teachers have been invited to this country by the Commission for Relief in Belgium, Educational Foundation, under the presidency of Herbert Hoover.

—New York Times.

—AND NOW THE MARINES

Beginning August 15, the Marine Corps had fifteen officers taking special courses of study at various military and civilian institutions. They include the Army War College, the Naval War College, the Infantry School at Fort Benning, Army Staff School at Fort Leavenworth, and Massachusetts Institute of Technology. In addition to these schools, it is understood that two officers are to be selected for the Army Signal School and Motor Transport School.

—Army and Navy Journal.

President Harding selected eight college graduates for his cabinet. Six of them came from colleges with alumni publications. Six of them subscribe for the alumni publications of their colleges. And it is rumored that every one pays his subscription as soon as billed.

—Bucknell Monthly.

By Way of Explaining

The decision of the Review Editors to deal in fullest detail with the news of Dr. Stratton's election to the presidency made necessary a somewhat extensive rearrangement of material in this number. The Review was theoretically closed to new material eleven days before the election announcement came. To make the inclusion, the Review, even though it added twenty-four pages, was forced to omit three feature articles,

and to either omit or curtail a number of its regular departments. "Tech Men in the Public Eye" and "Books" were omitted and "News from Alumni Associations," "News from the Classes" and "Athletics," were considerably shortened. The Editors are sure that the secretaries and other contributors will appreciate the nature of the emergency.



WITH THE UNDERGRADUATES



PERPETUAL MOTION AS A PUBLICITY STUNT

The *Tech Engineering News*, the *Institute Undergraduate Technical Journal*, and particularly Forrest G. Harmon, its General Manager, achieved a rather extensive publicity, recently, by the design, construction and maintenance of a perpetual motion machine. In the past few months the "T. E. N." has leaned quite heavily upon machinery as a promoter of circulation. During the three months of the third term of the previous

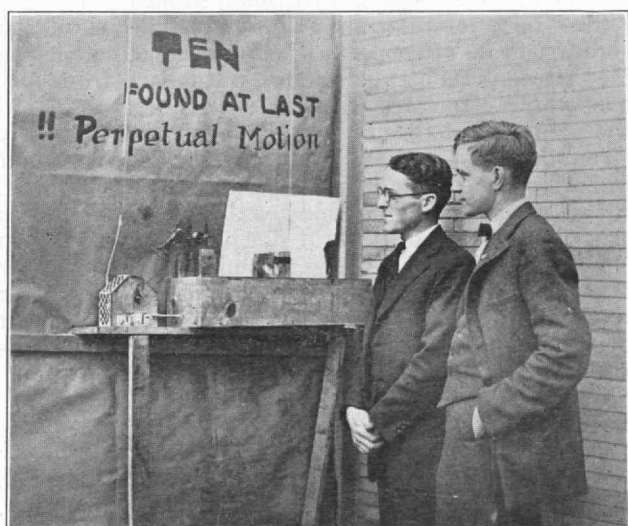


Photo by Keystone View Co.

The Turbine Pump Mechanism and two of its sponsors —
F. G. Harmon and T. B. Drew

school year an "automatic vending machine" made its appearance and generously disbursed a copy of the magazine on the insertion of a coin of sufficient size. The machine was likewise intelligent enough to return the ostensibly proper change if a larger coin than necessary was inserted in its maw.

The machine, not used on the appearance of the last several issues last spring, was, however, dug from obscurity and again utilized for the promotion of the first fall number. For the benefit of the curious, it may be said that the motivating agent was a callow youth inside it, who, on the appearance of the proper coin, slid a copy of the magazine down the chute, jangled a few bells, lit a few electric lights, and made a noise like whirring gears.

The *Tech Engineering News* seemed to feel, however, that it had not gone far enough with this machine; consequently, its structure was augmented this fall by the appearance on the side of an additional ingenious device. Primarily, it consisted of two units:—a "turbine" and a "pump." The pump drove the turbine and the turbine drove the pump, and so the thing went round and round and round. The turbine,

which was really more of a Pelton wheel, was driven by a flow of water from a small glass nozzle and its rotation was imparted by a series of rudimentary belts running over several pulleys to the "pump." This "pump" apparently caused water to surge upward through a glass tube to the top of the vending machine, whence it disappeared. The tube reappeared a moment later and led straight down to the Pelton nozzle and the cycle went over and over again.

Naturally, there was much interest displayed in this unique device. A number of the Boston journals rightly esteemed it as interesting news and sent reporters and photographers to interview the gifted Mr. Harmon. Several movie news weeklies clustered about the machine and clicked off many feet of celluloid of its activities. On October 9, a number of papers appeared with the story of how a Tech man had fooled his learned professors by his "perpetual motion machine." The *Boston Globe* was particularly rhapsodical on its front page. "So cleverly did Harmon have the machine constructed," said the *Globe*, "that hundreds of the Tech professors and students were unable to see why the machine was not, in truth, one



An example from the current Voo Doo of interesting
line work by one of the new Voo Doo artists.
The caption does not matter

of perpetual motion." "Great Jupiter!" said one to another, "have we really got the perpetual motion genius with us at last?"

Now, as a matter of fact, no Tech professor said "Great Jupiter" and no Tech professor wondered if the *T. E. N.*'s ingenious manager had really achieved perpetual motion. Most of them were able to penetrate through without difficulty to the fact that Harmon's "pump" was not much more than a gable-roofed little box enclosing nothing at all, and that the machine was kept going by additional activity on the part of the youth previously recorded as operating the vending machine, who hurriedly manipulated pails of water inside the booth. When the pail from which water flowed to the Pelton wheel became empty, it was refilled from the pail which received the Pelton wheel's discharge.

Probably Harmon builded better than he knew. He rightly estimated it as a device to catch attention of corridor crowds, but he probably never estimated it as front-page material for the great metropolitan dailies of Boston; nor probably did he believe that a Mr. J. W. Thompson of Lewiston, Maine, would travel through to Cambridge, post-haste, to greet a fellow-believer in the possibility of perpetual motion. But all of this happened, and now many thousands of people know about this undergraduate venture, the *T. E. N.* than ever knew of it before, and the wily Harmon got more newspaper space from his exposure of the mechanism than he got from his championing of it.

TECH SHOW PLANS:—Tech Show has been "going to New York this year" for the past ten years. This year of 1923 does, however, seem promising to an extent that has never been noted before. The

management have gone so far in their plans as to reserve the ballroom in the Waldorf Astoria for an afternoon and evening performance on March 20, 1923. If all plans are consummated and all hopes are fulfilled, the Show will make a two-day trip at the end of the second term and will play for the benefit of Vassar College at Poughkeepsie on March 19, as well as in New York. The tour of the Show will consequently occur precisely one month before the usual Junior Week performances, which are scheduled for April 19 and 20, in Boston, and for Northampton on April 21.

As this is written, no decision has been reached regarding the libretto which will be used as the basis of this year's production. Despite this, the Show office is extremely active in its plans for the coming year. Among other things, decision has been made to modify the old try-out system and to substitute for certain phases of it this year, the system of presenting a series of short skits which will be performed by men desiring consideration for a part in the main show.

The spirit of reformation has gone deep, and in addition to its other plans, the Show is contemplating the exaction of a certain scholastic standard from any man who is associated with it. No arbitrary standard has been set, but the understanding has been definitely given that if a man falls to an average below that which is considered proper, he cannot retain his position.

Two smokers will be held by the Show this fall as usual. The first to be held during the first week in November will be for men planning to write music and lyrics. The other, which is the general Show smoker, has already been set for November 20. At this time, men will be called out for the cast, chorus and ballet.

ATHLETICS

Athletics started vigorously with the opening of the fall term. On the track, in the field, and at the boathouse, a number of men, veterans and otherwise, have reported for the different teams. With the increase in the undergraduate dues, it has become more than ever the ideal of those interested in the management of athletics to give opportunity for a larger and larger number of men to get the benefit of athletic work. Consequently, the candidate for fall athletics has many choices of sports.

CROSS COUNTRY

The call for cross-country candidates was given early in the term. Several of last year's runners are still in school and Coach Kanaly professes to see much promise in the fifty-odd men who have turned out.

The schedule for this year is a heavy one. On October 21, the season was opened by a meet with Cornell at Ithaca. On October 28, a triangular meet between Harvard, Dartmouth, and Technology will be run over the Belmont course. The schedule also includes the N. E. I. C. A. A. and I. C. A. A. A. meets, which will be held on November 18th and November 27th respectively. A run with Princeton is pending at the present time.

CREW

That crew is coming into its own as a major sport at Technology is no longer a question. This year it begins with a boathouse, rebuilt for its special use —

one of the best in the east, a splendid coaching launch and a gradually increasing outlay of shells and oars. Nor is the personnel and spirit lacking.

With two competent coaches in charge, rowing in eights for all classes is being carried on for the first time. Eight freshman crews alone are put on the river, each evening, besides a full complement of crews from the other classes. The spirit of the sport which not so long ago kept a squad out when it had neither equipment nor coaches is still there, and shows no sign of abating.

Plans are being made for extensive varsity and class rowing in the spring and a successful season is in prospect.

There is still a lack of shells and first-class oars, but such things are only a question of time now for crew. Rowing for a large number, and a creditable varsity, is no longer a dream, but a very agreeable reality.

A detailed account of the future plans for the conduct of rowing at the Institute written by Dr. Allan W. Rowe, '01, Secretary-Treasurer of the Advisory Council on Athletics, will appear in the December issue of the "Review."

SOCCER

Soccer as a varsity sport is at present only two years old, but it is one that has greatly increased in popularity, particularly among the foreign students. During its first year of existence, 15 men were out for the team. Last year, there were 24. At this, the beginning of soccer's third year, there are 40 men.

The chief difficulties under which soccer is at present laboring are the lack of a coach and of sufficient ground for practice. Tech Field is at present in use for the freshman and sophomore Field Day football teams, which leaves only a restricted space for soccer practice. Last year's captain, Guimaraes Athualpa, is unable to play this fall, due to an injured knee, but he has agreed to help by coaching the team. The lack of a field may be remedied in the near future.

This year's schedule includes West Point, Clark, Springfield, Amherst, and Harvard. There is much good material on the team, which is expected to do ample justice to this excellent schedule.

FIELD DAY

The progress of the various teams that annually contest on Field Day, Friday, November 3, to decide the supremacy of the underclasses, is this year quite favorable. Both classes have sent out a good number of representatives.

For their Relay Team, 36 sophomores have turned out. In numbers the freshmen nose them out by one.

THE THOMSON CLAN

The Thomson clan which originated in Dunfermline, Scotland, in "The Bruce," Stuart and Douglas days, and which has produced many names in history, still has a number of kinsmen — friends now active in the world's science, exploration and political progress. T. Kennard Thomson is the famous engineer and giant-harnesser of nature's power in many places, who is planning to enlarge New York Island to include half of New York Bay down to "The Narrows."

Elihu Thomson is the most famous inventor in the electrical world (800 patents), inventing the dynamo, arc lighting, welding, etc.; ex-president of Massachusetts Institute of Technology. He started his career as professor in Central High School in "Philadelphia, the cradle of American science and government." Dr. James Park Thomson, C. B. E.; LL. D.; F. R. S. G. S. (Edin), is honorable secretary and treasurer of the Royal Geographical Society of Australasia; honorary president of the Hellenic Association of Australia. He is a graduate of Queens University, Kingston, Ont., and donor of the ethnological collection to its museum, said to be the best extant. John Stuart Thomson of New Jersey, Oriental explorer; author of "China Revolutionized," "The Chinese," and other books; authority on the United States Constitution; author of the New Jersey civic zoning law, is being widely recommended in the Chinese press for next United States Minister to the Chinese Republic, on account of his long life in China and many services for China-America good relations, for which he has received honors from both China and Belgium. He is leader of the movement to raise portrait-monuments to Pelatiah Webster, who wrote the United States Constitution (history in United States Senate document 461, 1908 Congress) in Philadelphia, where he is buried in an unmarked grave in Mt.

The tug-of-war teams have each enough men to form the first team, and nearly enough to form a second team, in addition. Freshmen adherents point with pride, and sophomores view with alarm the fact that the freshmen have already pulled the post out of the ground once this year.

The Field Day crews have reflected the increased interest that is being felt in rowing at Technology. The sophomores have practically all of last year's crew back, and at present are putting two crews in the water each afternoon. The freshmen have a much larger turnout: between 7 and 8 crews report each day.

Football has been hindered, somewhat, by the wet weather that has prevailed early in the month. The freshman team includes quite a number of prep school stars. In consequence, the football game this year should be distinctly interesting, inasmuch as this year's sophomore when it was last year's freshman team, won its game decisively.

Specially reserved seats for alumni will be available this year.

Vernon Cemetery, removed from Arch Street Cemetery. Stuart Thomas is historian of these Constitutional Websters, who were descended from fifth and eighth Colonial Governors of Connecticut, the latter also being founder of Newark, N. J., as "farthest south colony of Puritanism."

— *San Francisco Wasp*

DEAD MEN'S HANDS

Just when the Harvard and Andover corporations supposed the merger of divinity schools was nicely worked out to yield all the advantages of combination without sacrificing any essential elements of independence; just when every legal obstacle seemed to have been foreseen and avoided — comes an attempt to upset the agreement through an injunction.

What disposal the court will make of the plea which the visitors of Phillips Academy in Andover have entered against the merger, is not a matter for speculation here. But Harvard officials must be somewhat apprehensive when they recall the short life of the joint arrangement between their institution and the Massachusetts Institute of Technology.

It is unfortunate that educational and other foundations which are seeking to meet the demands of the modern age in modern ways, are forever running afoul of some clause in a musty old will or deed of gift that throttles the attempt. But so long as our institutions accept gifts with strings attached, the situation will remain at least partly in control of "dead men's hands." People who contemplate conferring their wealth upon philanthropies, should take care lest at some future time their donations become hindrances rather than helps.

— *Boston Traveler.*



EDITORIAL COMMENT



The President

In January next, almost exactly two years since our great leader was lost to us, Dr. Samuel Wesley Stratton will take office as ninth president of the Institute.

After many months of diligent search for an executive in every way fitted for this high and difficult position, the Executive Committee of the Corporation may now rest confident that Technology's new president will command the instant interest and respect not only of our alumni but of that large public in science, engineering and industry with which the school is so closely associated.

Like Gilbert's famous Heavy Dragoon, the president of a school like Technology must be a particularly competent person in many fields. The problem of governing Technology is far more complex than that of governing the traditional American college; in some ways, even, more difficult than that of governing one of the larger universities. A recent writer in the *New York Evening Post* spoke of the common fallacy of considering a college president as a product of specifications, standardized and interchangeable. It is obviously absurd to do this. No two schools have the same problems and requirements. If this be true of the average university and college, how much more true is it of Technology, which must serve for the average man as college, graduate school and professional school, which must give both a liberal and a vocational education, which must pioneer in pure science, supply industry with men as well as with expert knowledge; and, in increasing measure, must serve the educational needs of the government of the United States.

The career of Dr. Stratton contains an experience exceptionally enriched, it would seem, to satisfy the needs of Technology. He is a graduate of a great state university in the Middle West; he has been a teacher of science in all the grades from instructor to full professor, in his alma mater and, later, in the new University of Chicago; he was pioneer during the nineties in the work of training a naval militia on the Great Lakes, and a commander in the Navy during the Spanish War; always a research worker in science and technology. Most important, of course, he has been since 1901 Director of the Bureau of Standards of the U. S. Department of Commerce, the phenomenal growth of which, in size and importance, over twenty years, is due, to its first and only chief. Fresh from that bureau's war-time triumphs in invention and industry, feats which in some instances not only

rendered the United States independent of Europe but aided indubitably to a speedier winning of the war, Dr. Stratton has been willing, fortunately for us, to listen to Technology's call, to lay down the directorship of the greatest technological laboratory in the world, in order to spend for the Institute the rich experience of these invaluable years of research engineering.

There are not many competent men in the United States to whom a call to the presidency of the Massachusetts Institute of Technology would not mean a real increase in responsibility and opportunity. But Dr. Stratton can know no greater task nor success than he has known. For him, any change may be called a sacrifice and a generous condescension. Technology can in no way add to his prestige by electing him president; rather the Institute is adding largely to its own. He who has been a great public servant, a great consulting engineer with the people of the United States for client, is putting himself in the prime of life at the service of a notable private technical school. By that fact, for which we cannot be too grateful, Technology takes on more than ever the character of a great public institution.

The Bow and Blush

The altered make-up and typography of the New Review are meant to be the outward and visible signs of an inward and spiritual grace. To all purposes, the Review is now a new magazine, and putting a new line into old bottles is scripturally frowned upon. Most readers are now probably wondering what the new line is to be like. Let us take a moment to outline the intention of the Review, as the editors discern it.

The Review is the official publication of the Institute's Alumni, and is the semi-official magazine of the Institute itself. To fill both fields satisfactorily the Review should, therefore, be a clearing house between former students and their Alma Mater. It should concern itself with what is happening among the Alumni and what is happening among the faculty and undergraduates in Cambridge, at the heart of things. It should explain these two separated bodies to one another, and tell each what the other is striving to do. It should be accurate and informing, but it should be readable in spite of this. It should be enthusiastic about Technology and loyal to it, and continually watchful how it may serve Technology's best interests.

But there are limiting conditions to these words. Loyalty does not mean abstention from criticism. Technology's shoulders are broad enough to take a little blame occasionally. And enthusiasm does not mean mania. The Review should be no one's propaganda puff-sheet. The Institute has certain definite and pressing needs, and it is the duty of the Review to give these fullest publicity. But it should be no bill-collector. It should jam its foot in the crack of no one's door and jabber at him.

Here incidentally is the besetting sin of more than one alumni journal. These publications, like everything else in the world, have their morbid psychiatry, and the two types one seems to happen on, in this domain, with the greatest frequency are the maniac and the melancholic. The first is given to wild bursts of frenzy concerning the necessity of standing back of the dear old coll, with everything you've got, come on boys, where's the old spirit that the loyal sons of old Muggledorfer never failed to show when their Alma Mater called to them in her hour of need, what she offers you now is the chance to repay your debt to her, which every. . . .

And more, like that. The melancholic, on the other hand, has exhausted every enthusiasm, worn out every emotion, lost every thrill. We recall one publication largely consisting of items like this: We regret to announce the death of W. O. Swim, '96, which took place at Camden, N. J., last February. We announce with regret the death of A. B. Winterbottom, ex '07, which occurred during a trip he made in April to Cleveland, Ohio. L. W. Zoob, '13, died at Port Jervis, N. Y., on March 2, last. (The absence of regret was a little glaring here.) And so on, for columns and columns and columns. There they were, dying like so many flies, and not a soul lifting a hand to do anything about it. It was all profoundly depressing.

But although the melancholic type is not inspiring reading, neither, to our mind, is the maniac. Of the two, we are inclined to favor the former the more. It is morbid, but at least it carries the tang to realism. There is nothing insincere, synthetic or artificial about it.

The maniac and the melancholic do not predominate among Alumni Magazines to the exclusion of all others, but they exist, and they should be warnings. It is the aim of the Technology Review to be neither. The Review will hope to be, in the future, a magazine to keep Alumni informed and inspired about Technology: informed, not only of the new dead but of the eternally living, and inspired, not by an artificially whipped-up enthusiasm, but by a matter-of-fact attention to the great things that Technology, without ostentation, and without display, does as her daily work.

A Vote of Thanks

In November, 1917, there appeared formal announcement of "A New Editor and a New Policy for the Review." The new editor was Robert E. Rogers, who, so time flies, has had charge of the Review, man and boy, for precisely five years now.

Mr. Rogers undertook the responsibility of editorship when Ike Litchfield went away to Washington in the Spring of 1917. He was not a Technology man, but he was the single-minded choice of the Review Council, for all that. In June, 1916, at the time of Technology's tremendous reunion and dedication of buildings, he turned to, and, almost single-handed, wrote 150 pages of the July Review, in which were set forth, with every corroborative detail, the happenings of those epochal days. As the historian of the greatest event in Technology's history, he did himself eternally proud, and demonstrated his love for Technology (Harvard man that he is!) in such a manner that the Council, confronted with Ike's resignation, knew instantly where to turn.

Since, five years ago, it turned, the responsibilities of the man it turned to have steadily increased. This year, 1922, found him in charge of all Sophomore English courses, of the advanced English course given in Engineering Administration, found him giving courses in Contemporary Drama, English, American and Continental Literature as General Studies; found him being President of the Boston Drama League, found him in frenzied demand as a lecturer on English Literature or Drama for any number of diverse institutions throughout greater Boston, and as an after-dinner speaker at almost every function held by Technology students.

Found him, likewise, still the Editor of the Review.

The arrangement, in 1917, had been "temporary," but the Professor of English, having eight other bulky responsibilities to carry, had somehow managed to keep a hand free for the Review. The not-inconsiderable straw that broke the camel's back was the decision to give the Alumni a monthly magazine. It was patently impossible for Professor Rogers to issue a magazine every thirty days. It is likewise impossible for a magazine to be issued every thirty days without a constant care in the intervening twenty-nine. That is why, with this issue, Professor Rogers becomes Contributing Editor, and the detailed supervision of the magazine passes to freer hands. In his new capacity he will be a frequent correspondent to the Review. Technology's Alumni will not lose contact with him. He will continue his work for them, but he should, the new Editors feel, at this moment, be interrupted long enough to receive a rising vote of thanks for the way he has served them.



NEWS FROM THE ALUMNI ASSOCIATIONS



WASHINGTON SOCIETY OF THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY

The weekly lunches of the Society have been held all summer with a good attendance, considering the hot weather, which is sometimes characteristic of the nation's capitol during the summer. Beginning November first, the arrangement of having a ten-minute speaker will be resumed. As was the case last year, some of the most prominent men in the city, both alumni and others, will be invited to address these meetings.

The Society looks forward to a busy and successful season. Besides the regular lunches every Friday at

12.30, at the University Club, a number of smokers and social functions will be arranged. The Musical Clubs have proposed to come to Washington Christmas week and negotiations are now pending for the trip.

A new Tech man in town is Major Edgar E. Hume, Medical Corps, who is said to be the most decorated officer in the United States Army, except for General Pershing. Major Hume, who is a "C. P. H." from Tech in 1921, has about twenty ribbons to wear on his chest.

The secretary became a member of the bar on October 9, and has joined the ranks of the legal engineers, of whom there are a number of Tech men in this city.

James A. Tobey, '15, *Secretary*.



*Picnic of Indiana Association M. I. T.
August 26, 1922*

Standing, left to right: Bugbee, '94, Doane, '15, Wayne, '96, Morrill, '09, Stickney, '96, Bonns, '99, Wall, '96.
Front row, left to right: Mayer, '05, Bugbee, Jr., Fleming, '19, Holliday, '99.

INDIANA ASSOCIATION OF THE M. I. T.

On account of the warm weather this summer, and the fact that vacations made it difficult to get the crowd together, no attempt was made to hold regular meetings in July and August.

A picnic was arranged, however, for Saturday, August 28, which proved to be most successful. The affair was held at Alex Holliday's camp, which is about ten miles north of the City. Eleven men attended the good time, meeting at the University Club at 2 o'clock and driving out together. Upon arrival at the camp, the crowd were introduced to the garden and Mr. Holliday organized a bean picking contest in which enough lima beans were picked and shelled in a negligible length of time to feed the entire Alumni Association.

The horseshoe pitching contest showed we had two real champions, namely, Morrill and Wall. Wall confesses that the crown belongs to Morrill, however.

In the scrub baseball, J. Lloyd Wayne distinguished himself nobly. In fact, nobody was able to get on to his curves.

The Indiana Association should prove of great value as a factor in national defense. The target shooting showed conclusively that all the men could shoot, although it was admitted by most of them that a large size target was most desirable. The Bugbee family, both father and son, proved to be the real crack-shots of the outfit.

As the afternoon drew to a close and the appetites were well whetted, the entire outfit was drafted for kitchen police. The Commissary Department consisted of Alex Holliday, chef, and Fleming as first assistant. Lima beans, sweet corn, fresh off the stalk, and potato chips were served with wonderful T-bone steaks broiled on the open hearth, and the meal was finished off with relishes, apple pie and cheese, coffee and smokes. The crowd sat around the open fire and reminisced until 9.30, and then drove home by moonlight. A permanent record of the outing was made by Dr. Bonns, staff photographer.

The regular September meeting of the Association was held Friday evening, September 29, at the University Club. Mr. H. D. Wilson, Chief Chemist of the Prest-O-Lite Company, gave a very interesting talk on storage batteries.

The activities for the coming months are not definitely arranged, but it is expected that a trip will be made probably in November to inspect the new water power development of the Noblesville Heat, Light and Power Company, about thirty miles north of Indianapolis.

Frank B. Shields, '07, is distinguishing himself in this vicinity as a golf champion. In the Country Club Tournament he is playing second to the Indiana State Champion. Not so bad.

E. M. McNally, *Secretary*.

TECHNOLOGY CLUB OF RHODE ISLAND

The winter season of the Technology Club of Rhode Island starts on October 19, with a meeting at the Providence Engineering Society Rooms on Waterman Street.

The activities of the Club during the coming year will be in the able hands of A. C. Dickerman, '05, as chairman of the Meetings Committee. Since the memorable evening when "Dick" proved the death-

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dealing properties of the molecule, the chairmanship of this committee has been awaiting him. In these days of general unrest, safety is paramount, and it is with a satisfied feeling of security that we place ourselves under the guidance of a man to whom the wiles of the struggling vitamine and the fatal molecule are as apparent as the coming shortage of potential B. T. U's.

Further appointments include those of A. K. Stewart, '16, as chairman of the Publication Committee and H. W. Congdon, '09, as chairman of the Membership Committee.

Since our annual meeting of last year, the Club has received seventeen new members, twenty-three resignations and has lost five through deaths, resulting in a membership of one hundred and twenty-eight with which to start the new season.

Norris G. Abbott, Jr., *Secretary*.

TECHNOLOGY CLUB OF NORTHERN OHIO

A meeting of the Executive Committee of the Technology Club of Ohio was held on Monday, October 2, 1922, to lay plans for the Club's activities during the coming year. Monthly dinner meetings will be held as heretofore, and weekly luncheons with increased attendance are being provided for. Luncheons have been on Thursdays in the private dining rooms of the Cleveland Engineering Society, Mezzanine Floor, Hotel Winton, and this date and place in all probability will be retained.

Philip N. Cristal, *Secretary*.

THE TECHNOLOGY CLUB OF CHICAGO

The past summer months have been active ones for the Club. The Joint Alumni Outing held Saturday afternoon, June 24, on the Campus of Northwestern University, was a big success. The Outing, the second annual affair here, was attended by over two hundred alumni of Armour Tech, Cornell, Illinois, Michigan, Ohio, Purdue, Northwestern School of Engineering, Technology and Wisconsin. Thirty-five Tech men attended and had a great day of it. T. M. Lothrop brought his son and so did several other alumni from the other colleges.

Baseball was the most popular sport. Needless to mention, we played indoor baseball outdoors. Our arms were not in shape to tackle the big game. In the shuffle, we drew Michigan as our opponents and in playing the game overlooked the fact that the object was to make as many runs as possible. Michigan snowed us under by the score of 16 to 4. However, we had several stars—Frank D. Chase, '01, who proved to be a real fielder except when it came to catching flies; W. B. Shippey, '19, who knew how to pitch the ball just where the batters wanted it; Les Millar, '02, whose main object at first was to have the batter safe—and many more too many to mention. Despite Michigan's able victory, they lost their next game to Armour Tech. Northwestern, assisted by several borrowed stars, however, managed to nose out Armour in the deciding game and won the championship.

When the sport turned to stunts, Technology came to the front. Bill Evans, '03, distinguished himself in winning the "Make It, Bake It and Eat it" contest. The stunt was to make a pancake, plenty of flour and water being provided, mix the batter, cook it in a small frying pan heated over a Sterno Camper's stove and finally to eat the concoction. The contest created tremendous interest. As the cakes began to cook, the excitement became intense. All of the nine contestants finished the race, but Evan's cast-iron bread basket had evidently received better conditioning at the Stute, for he won and was away ahead of several formable competitors from Purdue and Michigan.

The Commuter's race was a stumblingblock for most of the crowd. J. H. Carr, '21, from his previous aviation experience, convinced the judges that he knew how to fly, particularly when it came to getting a bite to eat and catching the train. Jack ate his doughnut, drank a bottle of pop (had only a nail with which to open it), lit a cigarette and reached the goal some fifty yards away for second place.

The Combined Relay Race, however, proved to be the main attraction. A team made up of alumni from Technology, Purdue, Michigan and Illinois opposed that from Armour, Cornell, Ohio, Northwestern and Wisconsin. At first, it seemed as if our legs were not long enough, but it soon developed that it was not a question of legs but one of mouths. Each contestant was given one large, thoroughly dry soda cracker. This had to be eaten or at least chewed a little and the next man signaled to start by an audible whistle. It was not a case of Fletcherizing. Many wanted to whistle and start their team-mate, but somehow just could not make a noise. And the judges insisted on a real whistle, none of the imaginary kind. If you think it is easy, just try it once and get your wife to time you. Be sure that you start with a large, thoroughly dry soda cracker, and when you whistle, that you really make an appreciable sound. Naturally, such a race dismayed

the best runners and our opponents won. Some claim he had too many engineers on our team who insisted too much upon thoroughness, others said our mouths always were too small and we just naturally could not win.

Be that as it may. All the stunts did not involve eating a meal. Another stunt, which was quite novel, was the six scent race where each contestant had to guess the contents of six bottles by their odor. No, they were not filled with liquor or home-brew. Our chemist had an off day and a chemical engineer from Cornell took the prize. This was really a very well-prepared stunt. Each contestant had his own set of bottles, each of which did contain a different chemical with a distinguishable smell.

The railroad and construction engineers found themselves quite at home in the nail-driving contest, where the object consisted in driving half a dozen small nails in a block of wood, using a railroad track spike maul for the job. Every nail had to be driven in straight. Those bent, had to be replaced with another nail. T. M. Lothrop, '95, had a hard time in locating the head of the nails, but managed to pull in to third place.

Although we showed up badly in baseball, J. O. Merrill, '19, won the tennis match and saved the day for our athletic reputation. With Merrill's first and several places in the stunts, as well as the highest percentage attendance, a summary of points showed Michigan first with 15, Technology second with 14, and Ohio third with 13½.

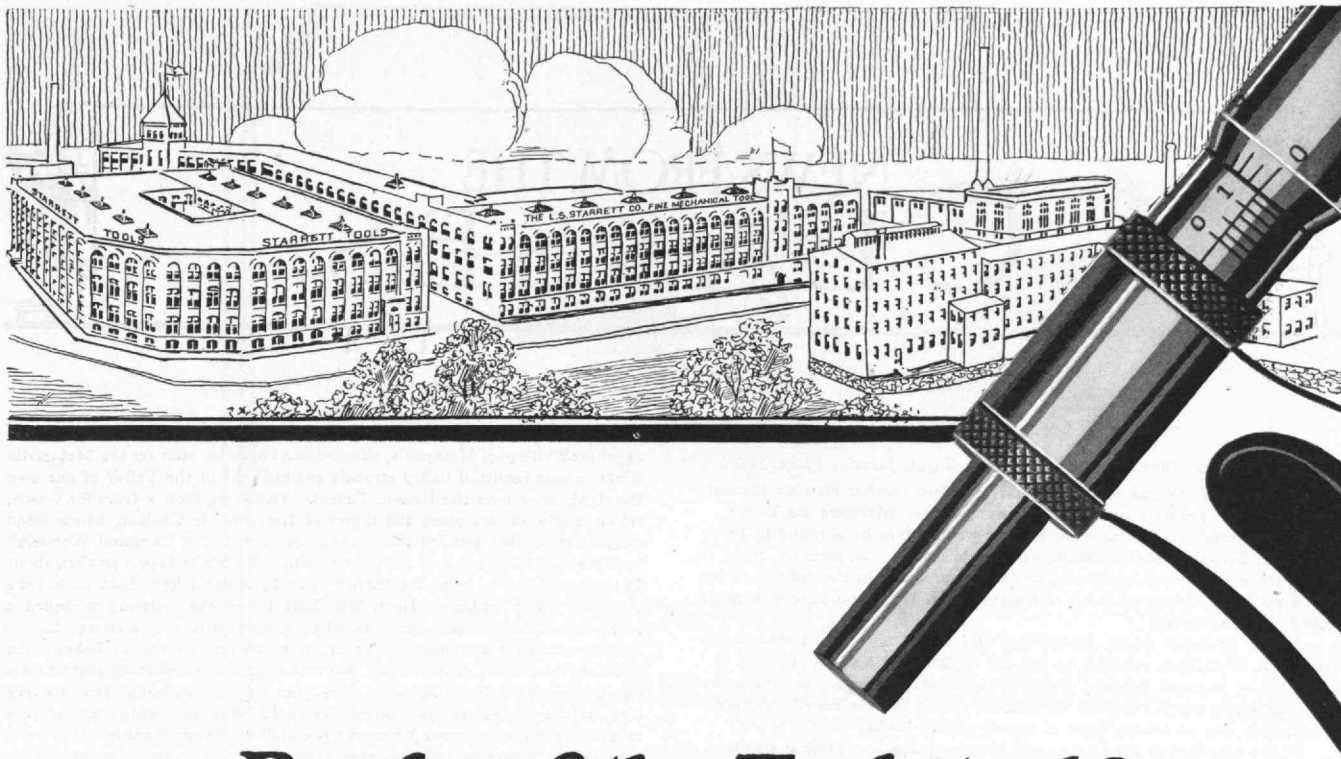
In spite of the fact that Northwestern University is in Evanston and supposedly far removed from the bootleggers, a case of "Old Crow" was raffled off. Naturally, it caused great excitement and consternation, likewise, when one of our Cornell friends opened it to celebrate, and found in it nothing but an old rooster.

On August 29, the Club had its own Annual Outing and those who could get away from business had a very enjoyable boat trip to Michigan City, where we were royally entertained by Frederick H. Burnham, '94, and E. B. Tuttle, '09. Burnham had arranged to take us for an hour's spin along the lake shore so, upon our arrival, we were soon loaded into a fleet of cars and given a most delightful ride. Michigan City is situated among the sand dunes which characterize the eastern shore of Lake Michigan. Our trip was picturesque in that we were continually winding in and out among the small hills and every now and then appearing on the lake shore. The breakers were quite high, so only a few of us went in swimming, and those who did, took care not to go out beyond the life lines. In spite of this restriction, the water was quite enjoyable.

A friend at court is a great person to have connected with any organization. We have all found our representative on the Alumni Council, B. R. T. Collins, '88, to be a real friend, and it is with the greatest of regret that the Club announces that on account of business conditions he had resigned his position on the Council. The Club wishes to take this opportunity to thank Collins for all that he has done for the Technology Club of Chicago and for Technology.

The next event on our program is a smoker, to be held at the Chicago Engineers' Club, on Thursday evening, October 26. It is hoped that all Tech men who are in the city at that time will find it possible to be present.

Robert W. Weeks, '13, *Secretary*.



Back of the Tool itself

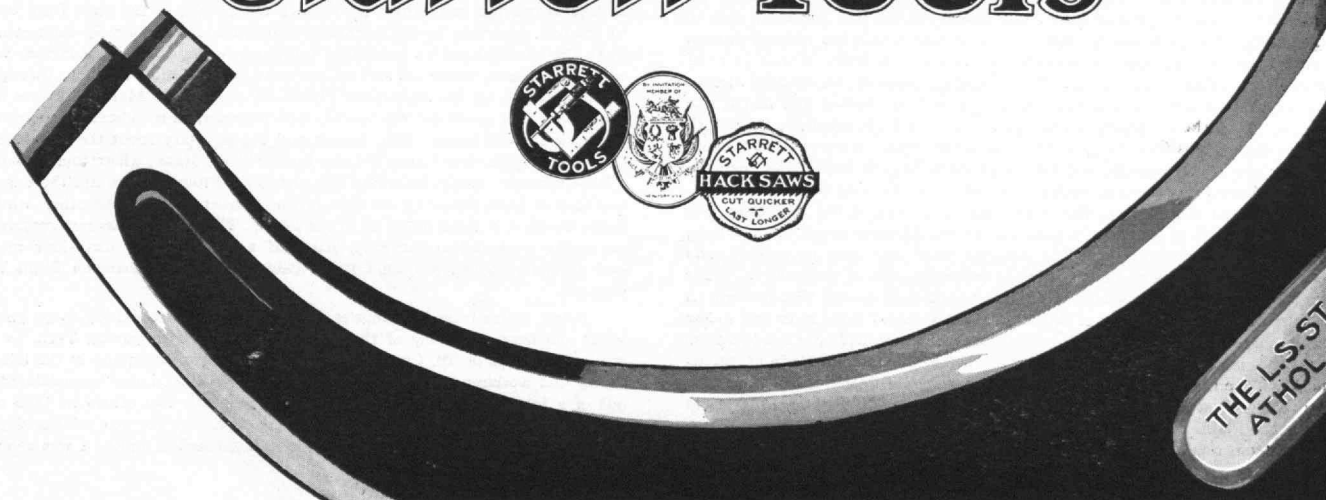
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NEWS FROM THE CLASSES



1868

ROBERT H. RICHARDS, *Secretary*, 32 Elliott Street, Jamaica Plain, Mass.

The Class of '68 has during the last year lost another member through death. This leaves only nine members living whose addresses are known.

The secretary is quoting from a letter written him by a friend of Louis Higginson, in which the following statements occur: "Apparently, there is very little in the life of the late Louis Higginson which in the opinion of his widow would be of interest to his classmates. Mr. Higginson's life was quiet, retired, and uneventful.

As you probably know, he enlisted and served with the Union forces during the Civil War, enlisting at the age of fifteen, I understand.

After he married, much of his life was spent in Europe traveling away from the beaten track, enjoying the unusual places and the life of the simple people. He was an ardent lover of nature and of books."

To the secretary of the Class, Louis Higginson has always been a prompt correspondent and has kept up a warm interest in Technology, helping on the various demands and drives and giving such as he was able to give.

1880

GEORGE H. BARTON, *Secretary*, 89 Trowbridge Street, Cambridge, Mass.

I saw Miller on the street a short time ago and urged him to give me at least a short letter for the "Review," but I have not heard from him as yet. He looked very hale and hearty as though life agreed very well with him and I think has made him a trifle too lazy to help us out. Hamilton I have not seen for about a year, but understand that he, also, is well, but working hard.

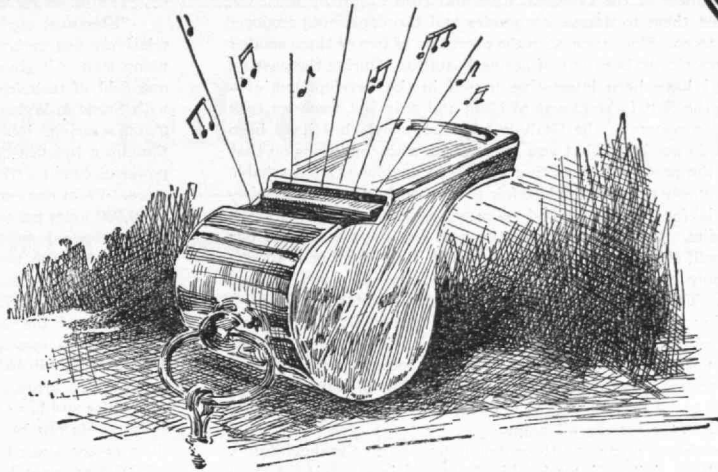
The secretary made the trip during the summer that was outlined in the last "Review." He had under his direction a party of ten ladies, including his wife, and one gentleman. Leaving Boston in the early evening of July 8, the party was delayed by a severe freight wreck near Syracuse, N. Y., so that we were several hours late in arriving at Niagara Falls. Owing to a strike of carmen, we were prevented taking the famous Gorge Trip down via the Canadian side and up the American side of the long gorge below the falls. We visited Goat Island, the Three Sisters, and around the immediate region of the falls on the Canadian side. The gorge and region in general give an exceptional opportunity to see a fine series of Silurian rocks. On our way to Toronto the next morning, we descended through the gorge to Lewiston, and thence crossed Lake Ontario by steamer. At Toronto, we had a ride around the city, which gave us a view of both the business and residential sections. Then we took the steamer for Prescott, where we changed to the "Rapids Queen," on which we made the passage through the numerous rapids on the way to Montreal. The ride among the Thousand Islands was very interesting and shooting the various rapids was rather exciting, though not so much so, as many anticipated. At Montreal, we had an extensive ride around the city and to the summit of Mount Royal, whence a fine view of the city and the surrounding country was obtained. From this point, the St. Lawrence is traced for many miles and the Adirondacks can be very distinctly seen to the south. Mount Royal is mostly volcanic rock which has resisted erosion more than the surrounding sedimentary rocks, and hence stands in relief above the surface of the others. Continuing our journey, we changed at once to the steamer for the Saguenay on our arrival at Quebec and had a fine journey down the St. Lawrence, stopping at two or three places, to the mouth of the Saguenay, which we ascended during the night. We arrived at Chicoutimi in the early morning and had an opportunity to inspect the beautiful new Cathedral there and to walk about the town. Coming back by daylight, everyone was charmed by the beauty and grandeur of the Saguenay, one of the few fiords of America. Capes Trinity and Eternity stood out in solemn majesty. The steamer turned in between them and gave us several tests of the very perfect echo that is reflected from the walls of the former. While on the St. Lawrence, it was very difficult to convince oneself that we were on a river and not a great lake of the ocean itself, so broad is the river and so low is the shore on the southern side. While at Quebec, we made our headquarters at the superb Château Frontenac and visited the famous Falls of Montmorency, the also very famous Shrine of St. Anne de Beaupré, and then took a drive around the Lower and the Upper City and visited the battlefield upon the Plains of Abraham where the Secretary's great-grandfather, a boy of eighteen, was a member of Wolfe's army in that famous battle that gave

all Canada to Great Britain. From Quebec, we came by train to the picturesque little village of Metapedia, situated in a charming spot on the Metapedia River, whose beautiful valley strongly reminds one of the Valley of our own Deerfield River near the Hoosac Tunnel. There, we took a train for Gaspé, riding nearly all day along the shores of the Baie de Chaleur, which often gave us views that recalled those along the "Road of a Thousand Wonders" between San Francisco and Santa Barbara. Arriving at Gaspé station, about 11 p. m., we had to cross the harbor there by a small ferry-boat to Baker's Hotel on the other side. Here, Mrs. Barton and the secretary occupied a room, in a cottage outside the hotel, which was in the form of a chapel, having Gothic arches for a ceiling and an organ at one end. Here, at Baker's, the secretary found one of his former students engaged in collecting plant fossils for the New York State Museum. With her for a guide, he enjoyed two very long and interesting tramps. Gaspé Peninsula forms the division between the mouth of the St. Lawrence River and the Gulf of the same name. It is very long and very narrow and rises very abruptly from the water on both sides, being very precipitous at many places on the river side. Fossils, both plant and animal, are very numerous in the rocks and it is an interesting place for the geologist and the paleontologist. The town of Gaspé consists mostly of houses built along one main street from which one ascends or descends very abruptly to a different level. Many fine mountain views repay the tramp, but there is little chance for riding.

Coming back from Gaspé, we left the train at a deserted little station, the "Corner of the Beach," where we were met by a rough two-horse vehicle and taken over a very rugged but extremely picturesque mountain drive to Percé Village, one of the most picturesque regions in North America. Here the mountains run directly out to sea, their course being directly cut across by the breakers, so forming a very ragged coast. A huge mass, much like an enormous ocean-steamship in form and outline, has been separated from the main shore and stands in solitary grandeur just off the coast, looking like a steamship coming directly on shore. Its sides, over four hundred feet in height, are vertical and, so far as known, no one has ever been able to ascend to its summit. This isolated remnant is known as Percé Rock because of a tunnel, cut through by the waves, which is large enough for a rowboat to pass through at the right condition of the tide. Back of the village is Mount St. Anne on which there was formerly a very large statue of the Saint which could be seen for many miles. This has now been destroyed by the winds. From the summit, one can see the main axes of the Appalachian Mountains extending to the southwest as far as the eye can see, a most impressive sight.

From Percé, we returned to Metapedia and thence came to Moncton, where we had two very fine views of the "bore," for which this place is famous. At the hotel each morning a notice is posted, giving the times at which the bore will pass up the Petitcodiac River, and at each time a crowd will be found at the little Park on the river's edge watching for its appearance. This bore is simply the high tide from the Bay of Fundy advancing rapidly up the river and in overcoming the current of the river forms a wall of water, moving about as fast as one can run, which rises above the surface of the river from two to five feet, according to the conditions at the time. It is a very interesting sight that never loses its attraction for the onlookers. From Moncton, we came to St. John, where we had an extensive drive around the city, through the large Park, by the Reversible Falls, and around the Martello Tower at Carleton. This concluded our journey and we returned to Boston by steamer, having a fine sail home. Mrs. Barton and the secretary spent the remainder of the summer at their Camp of Lake Boone, Stow, Mass., where there is now a large summer colony, including 387 cottages. From their camp, there is a fine view of Lake Boone on one side, of the Assabet River on the other, while in the distance, Nobscot looms up in the south. The secretary has now resumed his regular work and on Saturday, last, had a field class of forty-four men and women on a tramp around Lake Walden and over Fairhaven Bluffs to Concord.

Potter writes from Los Angeles as follows: "It was a real joy to get your letter and hear something of the remnant of '80. After leaving Tech, as I did in the Spring of '79, I went into the steel business, beginning in the laboratory and working up to the vice-presidency. In 1890, I was "consolidated" out of a job—that is, our company combined with two others in 1889 to form the Illinois Steel Co., and the frictions caused by the new relationships in management made it so unpleasant that I resigned in 1890. I was after-



It will pay you to listen to this music

ALL over the country the whistle is blowing for the kick-off, the start of that great game—another college year.

Be on your toes when the whistle blows. A good start will carry you well on toward your goal.

Let the football candidate start by working away till his muscles ache from bucking the line.

Let the aspirant for manager put in careful study of his team's needs, always eager to help—arranging a trip or carrying a pail of water.

Let the publications man be alert for news and tireless in learning the details of editorial work.

Whatever activity you come out for, crowd a lot of energy into these early Fall days.

And if a good start helps win campus honors, it helps win class room honors, too. The sure way to be up in your work is to aim now for regularity at lectures, up-to-date note-books and particular attention to the early chapters of text-books, thus getting a grip on the basics.

This is best in the long run, and—selfishly—it is easiest in the long run. That is, if life after college is made easier by the things a bigger income can buy.

*Published in
the interest of Elec-
trical Development by
an Institution that will
be helped by what-
ever helps the
Industry.*

Western Electric Company

This advertisement is one of a series in student publications. It may remind alumni of their opportunity to help the undergraduate, by suggestion and advice, to get more out of his four years.

1880 Continued

ward consulting engineer of the Colorado Fuel and Iron Company until the panic of 1893 forced them to drastic economies and the consulting engineer was one of the first to go. Since then, with the exception of two or three smaller ventures, I have practically been out of active business. During the past six months, however, I have been interesting myself in the development of a potash industry in the Salt Lake Desert of Utah and only last week we took out our incorporation papers of the Utah Potash Co., of which I have been made president. I do not know that you are familiar with conditions on that desert, but within the past four years there has been developed a remarkable and unique potash supply there, which bids fair to furnish the complete requirements of this material for this country and make us independent of the German and Alsatian deposits. I will send you in the next few days a copy of our prospectus, which will give you the whole story, and I am sending it to you for that purpose only and NOT for the purpose of interesting you or your friends financially. That part has already been pretty well taken care of.

"It is something like fifteen years since I have been in Boston. I have often promised myself that I would journey to Boston merely to see the new Tech buildings, if nothing more, but that day never seems to come. Now, I am most too far away. However, when the next quinquennial alumni reunion is held, I am going to be present if it is humanly possible. I certainly hate to think of you cheering for '80 all alone.

"My family consists of a son and three daughters, and five grandchildren. My son is a consulting civil engineer in this State and is managing a large fruit-ranch on the side. One of my daughters is married to a Major in the Air Service, whom she met during her service in France, and they are now in London, where he is an attaché of the Embassy. My second daughter is married to a Naval surgeon and lives with us, while her husband is on duty at Pearl Harbor, T. H. My youngest daughter is unmarried and keeps our house, as my wife is an invalid."

1882

WALTER B. SNOW, *Secretary*, 60 High Street, Boston, Mass.

Albert C. Brackett has removed from Framingham, Mass., to 16 River St., Boston. The address of Harry W. Jones is now 5101 Nicollet Ave., Minneapolis, Minn. The last reported address of John F. Low was 195 Twenty-fifth St., Elmhurst, N. Y. John H. Ross has severed his connection with the Linen Thread Co., of Boston, and may now be addressed at 88 Clinton St., Boston. Edgar B. Thompson reports his present address as 832 Crescent Boulevard, Glen Ellyn, Ill. The address of Charles J. A. Wardwell, who was voted in to membership in the Class Organization at the Fortieth Anniversary, is 137 Steuben St., East Orange, N. J.

1884

H. W. TYLER, *Secretary*, M. I. T., Cambridge, Mass.

Bardwell has recently become a member of the faculty of Carleton College at Stillwater, Minn. He has been in the East during the summer and is reported as in excellent health and spirits, but the secretary missed the pleasure of a personal meeting.

Lull has returned from Texas to his former home in Westwood, Mass.

1888

ARTHUR G. ROBBINS, *Secretary*, M. I. T., Cambridge, Mass.

The secretary has received word of the death, on August 25 last, at Lake Forest, Ill., of Delavan Smith, for many years publisher of the *Indianapolis News*.

Mr. Smith was a member of the Class for one year, coming to the Institute from Lake Forest College.

J. Waldo Smith has announced his resignation as chief engineer of the New York Board of Water Supply after nineteen years' service in that capacity in the construction of water supplies for the City of New York.

He will continue his connection with the Board of Water Supply as consulting engineer.

1888

WILLIAM G. SNOW, *Secretary*, 112 Water Street, Boston, Mass.

Walter K. Shaw has practically recovered from the effects of a thirty-foot fall from a ladder at his home, Concord, Mass., last January.

During the summer on a trip to Quebec, he left there in the morning and reached home at Seal Harbor, Maine, the same day by motor.

C. Leonard Brown with the Federal highway department at Washington paid the secretary a call while on his vacation this summer. His department is naturally very busy at this season.

Gertrude, daughter of Mr. and Mrs. Arthur T. Bradley, was married on September 30, at Chestnut Hill, Mass., to Dr. Thomas Hinkleley Lanman.

Arthur B. Frizell's present address is 179 St. Botolph St., Boston.

William G. Besler spent two months this Summer on the other side. He had his entire family with him and they visited and spent four days on the battlefield. He spent some time in Germany and saw the Passion Play at Oberammergau. Thence to Venice, Rome, Naples, and back to Paris, with a final two weeks in England.

While he was away, the shopmen's strike took place. Besler states that one important result of this strike—important from the standpoint of Public interest—is that the movement for Nationalization of Railroad Shopmen's Organization, with all of the inequalities and injustices to the employees themselves, let alone the entire disregard of the Public's interest in the matter, is now definitely behind us.

The following is from the *Electrical World* of August 19, 1922:

"Electrical engineering is a many-sided profession. The experience of relatively few embraces every principal branch of the industry, nor to very many men is it given to create for themselves high reputations in more than one field of technical service. To William H. Blood, Jr., electrical engineer with Stone & Webster, Inc., belongs the distinction of having worked in the manufacturing, jobbing, contractor-dealer and utility fields and acquired thereby a breadth of outlook and seasoned judgment which have exerted a powerful constructive influence upon electrical progress for virtually a generation. From one end of the continent to the other, he has traveled an average of 30,000 miles per year, investigating utility problems at first-hand, reporting upon proposed developments and existing situations, passing upon intricate questions of fire protection, testifying as an expert witness in commission and court cases, analyzing industrial opportunities, recommending betterments, and, in general, serving as guide, philosopher and friend to member companies of the National Electric Light Association through his official connection as insurance expert of the association and as advisory engineer for the great Boston organization with which he has been associated for twenty-eight years. Mr. Blood has made valuations of probably a hundred companies and has examined properties aggregating in value about two billion dollars. He has had occasion professionally to visit 180 out of 192 principal cities of the United States.

"To appraise Mr. Blood's work in electric fire prevention and measure the influence of his untiring labors upon the National Electrical Code would indeed be difficult. Certainly no other engineer in this country is more responsible for putting the grounding of secondaries upon a mandatory basis where once it was prohibited. For over a decade he has been chairman of the committee on grounding of the National Fire Protection Association and for many years has been insurance expert of the N. E. L. A. He was president of the latter body in 1905-6 and was the first president of the Electric Vehicle Association of America, serving two years in 1911-12. Always a firm champion of progress, Mr. Blood has insisted that safety go hand-in-hand with development, and his keen philosophic insight into the trend of the industry has never led him into visionary pastures. His contributions to the press embrace an extraordinary variety of topics associated with the economic, human and engineering phases of electrical development. More than 2,700 reprints of his recent paper upon "The Passing of 'Depreciated Value' in Rate Cases" have been welcomed by interested readers in circles concerned with regulation. For two years he was a faculty member of the Harvard Graduate School of Business Administration, and he still lectures upon "Public Utility Operation." He is a fellow of the A. I. E. E.

"Mr. Blood was born in Boston on March 29, 1866. He was educated at the Massachusetts Institute of Technology and in 1888 entered the industry at the Thomson-Houston factory in Lynn, soon being promoted to have charge of the second floor of Factory C, assembling and testing alternating-current machinery. In 1890, he was placed in charge of the repair department of the Northwest Thomson-Houston Company at St. Paul, and from 1891 to 1894 was a partner in the Franklin Electric Company, Kansas City, building about thirty central stations and several electric railways and waterworks, and doing a contractor-dealer and jobbing business. He joined the staff of Stone & Webster in 1894 and has always held a prominent position in that organization as a consultant at every stage of its extraordinary development."

Roberts wrote the secretary recently as follows:

"I have your request for news from the M. I. T. Class of '88. For the most part, I have simply continued the routine of my professional work with my associates in partnership, Robert Cushman and Charles D. Woodberry. In 1920, as you know, we were summarily evicted from the old offices at 95 Milk Street and this precipitated my father's final retirement from practice, he then being eighty-four years old, so that since then we have not had the pleasure and satisfaction which his daily presence in the office afforded.

"My children are all either in full maturity or fast approaching it. My oldest son is now in the Harvard Medical School, my second son will enter college in another year, and my daughter is big enough to begin to have thoughts of what will happen when she 'comes out.' During the last two years I have been a member of the Council of the Bar Association of the City of Boston and I am now about to begin my third, or is it the fourth, term as a member of the Board of Directors of the Harvard Alumni Association."

B. R. T. met Sylvanus S. Cobb recently and reports that he looks as youthful as ever. He is now connected with the Patent Department of the United Shoe Machinery Corporation. Collins has been much interested in the Chebeague Golf Club (Portland harbor) during the summer and reports a successful season.

1890

GEORGE L. GILMORE, *Secretary*, Lexington, Mass.

George E. Hale has recently published a book entitled "THE NEW HEAVENS," published by Charles Scribner's Son. It contains 88 pages, and is said to be a splendid antidote for that constantly recurring feeling of self-importance. It is Hale's latest contribution to the literature of astronomical research. It is written in untechnical language and describes briefly the progress of modern astronomy. Progress mainly due to the developments of the photographic telescope and the application of the spectroscope to the study of celestial objects.

On August 5, three representatives of '90 got together for a battle on the golf course. Fred Dodge, who had been spending the season at Gloucester, drew up with his car, and John Batchelder came out from Boston where they

What college failed to give him

An unusual letter from a successful man to a younger man

A hundred men graduate from college in the same class with identically the same training. At the end of ten or fifteen years, a few of the hundred have forged far ahead. They have "made a place for themselves" while the great majority are still held—many of them permanently held—in the routine places of business.

WHAT causes the difference? What extra training do the few add to their college work which carries them so much farther and faster?

A clear-cut, interesting answer to that question was given recently in a letter by

A college man to whom success came early

Stephen B. Mambert, Vice-President of the widespread enterprises established by Thomas A. Edison, is still in his early thirties. To his desk there came a letter from a young man in Texas. "I am conducting a little business here," the young man wrote. "What can I do to grow and to make it grow? Would the Alexander Hamilton Institute be a paying investment for me?"

To which Mr. Mambert replied: "In answer to your inquiry I cannot do more than outline

My own experience

"The chief thing I learned in college

was how to study. Notwithstanding the fact that my schooling provided me with an opportunity to study many of the things which are regarded as valuable, I very keenly felt, upon leaving college and entering business, that I was like a wheel with spokes of different lengths, and that I needed something to round out and to bring together into a complete whole the different spoke lengths. In fact, I entirely lacked several spokes. In my individual case, the Alexander Hamilton Institute Course served this very useful purpose."

The little added training that makes success

What, precisely, did the Alexander Hamilton Institute give to Mr. Mambert in addition to what college had given him?

It gave him the same sort of graduate training in business which hospital experience gives to the physician, or the law office gives to the lawyer. This training includes a knowledge of the principles underlying every major activity in business—sales, accounting, costs, merchandising, advertising, factory and office management, corporation finance.

Add this training to the four years

of college, and you give a man a distinct advantage over his classmate who has the cultural or technical training of college alone. And the cost of the added training in money and time is trivial in comparison with the rewards.

A book worth sending for

The facts about the Alexander Hamilton Institute—what its Course is, and just what it has done for other college men—have been condensed into a 118-page book "Forging Ahead in Business." To many a man the evening which he spent with this book has proved more valuable than any other in his business life. There is a copy for every thoughtful college man; it is a book well worth adding to your business library. Merely fill in the coupon; your copy will be sent at once, and without obligation.

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584 Astor Place, New York City

Send me "Forging Ahead in Business" which I may keep without obligation.



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Business Position.....

Canadian Address, C.P.R. Building, Toronto; Australian Address, 42 Hunter Street, Sydney

1890 Continued

joined your secretary, and after lunch at the Belmont Club, adjourned to the Lexington Golf Course for a battle. Perhaps the less said about the scores, the better. However, it was a gala day, for when Batchelder appeared on the scene he announced that he had just had a wire stating that he had become a grandfather that morning—in reply to which Dodge reported that on that day his grandson was two years old. The result was, at dinner that night at the secretary's, a bottle of champagne, thought to be the best thing, especially after Batchelder had produced it from his dress-suit-case.

In order that the golf should be properly conducted, John DeWolf came out and acted as referee to celebrate the occasion.

In August, Charles Hayden had a cruising party on his yacht "The Viking" along the Maine coast, stopping at Bar Harbor.

George Hale, who is on research work abroad for some time to come, on August 1, was at Geneva as a member of the intellectual committee of the League of Nations, where the committee was organized preliminary to the preparation of a plan for international intellectual coöperation.

Leonard C. Wason, President of the Aberthaw Construction Company, has written a series of articles under the general title of "America's Second Best Industry." They are appearing in "The Construction" and being copied by other industrial publications.

During the summer, Billy Ripley was at East Edgcombe, Maine.

Mr. and Mrs. Wm. Z. Ripley announced the marriage of their daughter, Ruth, to Mr. Emmet Carver, on Saturday, the nineteenth of August, at East Edgcombe, Maine. The young couple will locate after October 1, at 605 South Lincoln St., Urbana, Ill.

Calvin W. Rice was given a dinner in August at the Engineers' Club previous to sailing for South America, August 24. Cal, who is secretary and honorary vice-president of the American Society of Mechanical Engineers, goes as a delegate to the Pan American Engineering Congress held in Rio de Janeiro in September. After the completion of the Congress, Cal will continue on his trip, calling on the Engineering Societies in the capitols of the principal South American countries; crossing the Andes and returning up the West Coast.

He left in the party with Secretary of State Hughes. At the dinner to Cal, engineers, scientists, and educators from all parts of the country were present. Rice carried with him official letters from the American Society of Mechanical Engineers, the American Society of Civil Engineers, the American Institute of Mining and Metallurgical Engineers, the American Institute of Electrical Engineers, the John Fritz Medal Board of Award, the Engineering Foundation, the United Engineering Society, the Engineering Division of the National Research Council, the Federated American Engineering Societies, the Engineers Club of New York, and the Engineers Club of Philadelphia. Cal has received a number of honors in the past few weeks in addition to the above. The Engineers abroad voted him an Honorary Member of the Koninklijk Instituut van Ingenieurs.

As a man, Mr. Rice has always stood for the highest engineering ideals, and his private as well as his public life exemplifies the spirit of service which is becoming recognized as one of the fundamentals of the profession.

While in Rio, he will give a dinner to South American representatives of the national engineering societies in return for the courtesies extended by them during the Congress to North American Engineers. He will also extend a formal invitation to South American Engineers to participate in the Engineering Congress to be held in Philadelphia, in 1926, in connection with the Sesqui-Centennial Exposition. Cal will probably be out of the country until some time in November.

In August, Billy Poland, former chief engineer of the Alaska Central Railway, sailed for Belgrade to take charge of the construction by American interests of a railway system connecting the capital of Yugoslavia with the ports on the Adriatic. He said it would take several years to complete and would open vast mineral resources as well as furnish vitally essential outlets for Yugoslavia agricultural products. American experts who have made careful surveys of the resources that will be exploited by the railroad, declare that no other European country has mineral deposits of the extent or variety found in Yugoslavia. Most of the money recently loaned by American bankers to Yugoslavia will be used on the project.

Mr. Poland has been a construction engineer for a number of years, both in railway and Government service, and has been a corporation manager as well. He organized a battalion of engineers during the Spanish-American War, serving under Colonel Goethals in the 158th Indiana Volunteers. In 1915, he was director of the Commission for Relief in Belgium, being made European Director in 1917. In 1919, he was engineer member of the American Military Mission to Asia Minor under General Harbord. In 1920, he served as joint liquidator of the Commission for Relief in Belgium, closing the \$923,000,000 of operations, and also as joint manager of the European Technical Advisers Organization. Mr. Poland has also been for some time a member of the Executive Committee of the American Relief Administration, Secretary of the New York Committee on Marine Piling Investigations, Vice-President of the C. R. B. Educational Foundation, and member of the American Port Facilities committee, and the International Chamber of Commerce. He is a Fellow of the Royal Geographical Society and a member of a number of American engineering organizations.

A letter was received in July from Harry A. Kennicot, whose address is 914 First Ave., Nebraska City, Nebraska. Harry has been married now about ten months. He writes and advises that married life agrees with him, he and his wife both having gained about 30 lbs. in weight, and he is surely

enjoying life. He is in the County Treasurer's office as Deputy, but tax paying time does not come until November, so at present, business is rather slack.

Your secretary, with Mrs. Gilmore, left Boston the last of May, arriving home July 1, on the special New England train to attend the Rotary Convention at Los Angeles, in June. It was a most delightful trip, including stops at the Grand Canyon, the Yosemite, also a run down to San Diego, then up to San Francisco, Portland, Seattle, Lake Louise and Banff, returning by way of Winnipeg.

While in Los Angeles, he called on three of your classmates, whom he had not seen since the days at Tech. Sam Storrow, who is weathering the life in Los Angeles, and whose home is at Pasadena. Sam is busy, apparently, with relief work and doing good as usual, even if he is getting somewhat bald. Eugene Holmes was found in his law office, looking young and contented as ever. He has certainly reason to be proud of his boy who did good service during the war on the other side.

Burdett Moody looked the same as when we last saw him, with probably a little more sign of age than thirty odd years ago. He is busy on municipal work in connection with the power plants, and, of course, like the rest, thinks there is no place on the map like Los Angeles.

A letter was recently received from Frank Hayes of Superior, Wisconsin. Frank had recently returned from a trip to the far West, and while in Washington contracted the apple fever, and bought an apple orchard in the Wenatchee Valley, so may return there in the Fall. A prospective son-in-law is an experienced orchardist and placed in charge. Frank has recovered his health and is now enjoying life by taking many long trips throughout the country. He states that he is a confirmed optimist as regards the United States as a whole, and the Northwest in particular.

Dr. G. E. Hale '90, director of the Mount Wilson Observatory at Pasadena, California, was the American representative to the International Research Council at Brussels. Dr. Hale, who is a graduate of Course VIII and holds the degrees of Sc.D., LL.D., Ph.D., has the distinction of being one of the world's greatest solar and stellar investigators. His training in physics and astronomy at the Institute, at the Harvard Astronomical Observatory, and at the University of Berlin, qualified him for a professorship of astrophysics which included the directorship of the famous Yerkes Observatory. Many other honors have been conferred upon him, so that few men in the United States have been so honored by European and American scientific societies as Dr. Hale.

1892

JOHN W. HALL, *Secretary*, 8 Hillside Street, Boston 20, Mass.

Congratulations to Professor W. A. Johnston who was married on August 8 to Miss Edith Crane Lanphere of Belmont.

It is now Professor W. Spencer Hutchinson, as he has been appointed professor of mining engineering at the Institute.

Kales writes that he recently ran across E. L. Andrews and regrets to say that owing to a severe illness he, Andrews, is still unable to resume business after a year and a half of convalescence.

A belated card concerning the reunion was recently received from Knudsen, mailed from England, and saying that he expects to leave for our next reunion from Europe in July, 1923.

C. Emil Muller reports his address as being changed from New York to 5839 Richmond Avenue, Dallas, Texas.

1894

SAMUEL C. PRESCOTT, *Secretary*, M. I. T., '94

No notes received from the secretary.

1896

CHARLES E. LOCKE, *Secretary*, M. I. T., Cambridge, Mass.

J. ARNOLD ROCKWELL, *Assistant Secretary*, 24 Garden Street, Cambridge, Mass.

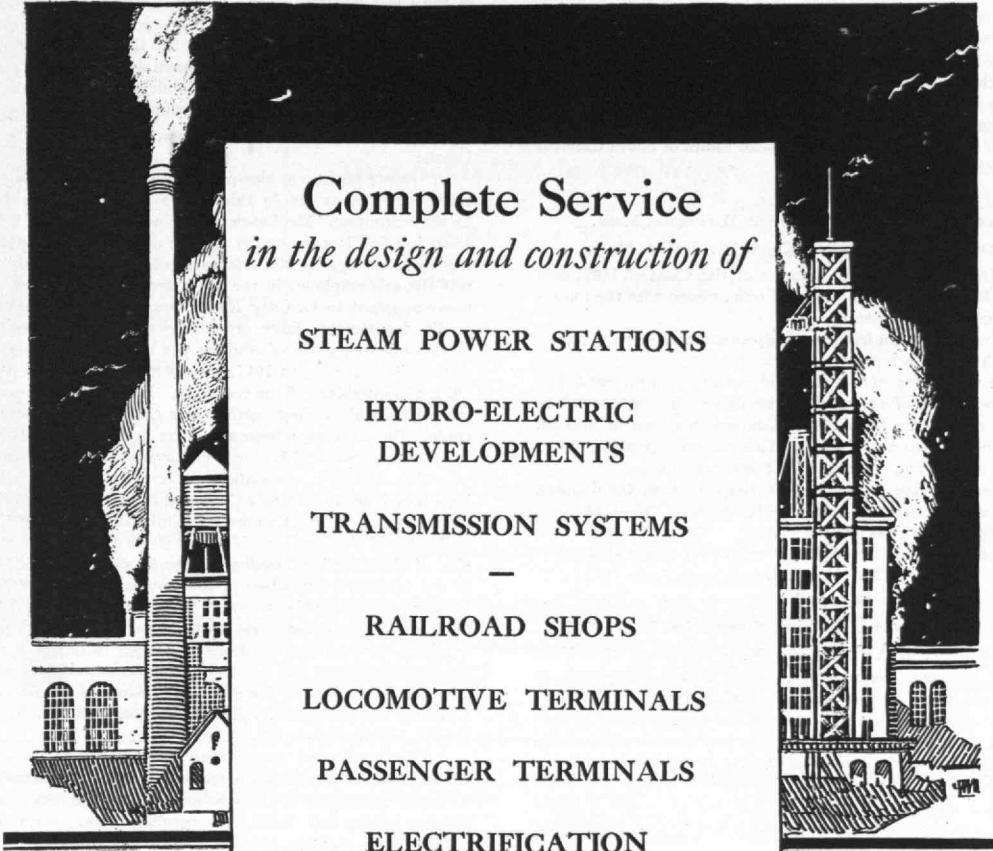
Not a great deal of grist has come to the mill during the summer.

The secretary had a letter from Woodwell in New York the latter part of July, stating that the corner stone of the municipal plant at Lansing, Michigan, was to be laid on August 5, and that he and McGonigle would surely be present, and that he had hoped to have other Tech men, also. This is considered to be the largest municipal plant ever projected in the history of the country and Woodwell is acting as consulting engineer and McGonigle is one of the contractors. Woody still maintains his membership in the Sunshine Club, and is the leading member of the committee on increase of membership in this club.

F. H. Pratt wrote from Portland, Oregon, that his work keeps him on a continual move, so that his movements are extremely erratic and he can never tell whether three months hence he will be in Tokio, London, or Boston. This is one of the penalties of being in the shipping game.

The secretary made a professional trip to Mexico during the summer and on his return took the opportunity to call on Bob Flood in Chicago and fortunately landed there on the day of the weekly lunch of Tech men at the Engineers Club. Flood is president of the Chicago association this year and is certainly making good on the job. Like many others in the Class, he has put on flesh with added years, but his original hair still remains, along with the genial smile and all-around versatility.

John Rockwell disappeared, so that the secretary was unable to get any news from him, but it is assumed that he went on his annual trip and vacation



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RIO DE JANEIRO

1896 Continued

to Tennessee. — Lucius Tyler reports that he spent much of the summer on the water of Buzzards Bay in a sailboat. No report has been received from Jacobs who spent the summer in Europe, but it is assumed that he will come to in due time and tell us what he did there.

The Class of '96 is honored by the action of the American Institute of Architects at their Fifty-fifth Annual Convention in Chicago in June, by electing as its nineteenth president, Wm. B. Faville of San Francisco. Faville has now reached the point where he is looked upon as one of the great American architectural designers.

R. E. Bakenhus is one of the eight members of the Naval Board appointed by Secretary Denby and headed by Rear Admiral Hugh Rodman to examine into the question of the future of navy yards and naval shore stations. Bakenhus's present rank is that of Captain and his regular assignment is Assistant to the Chief of Yards and Docks. This navy yard matter was precipitated by the order of Secretary Roosevelt to close the Charleston, S. C., yard on November 1, which was in turn objected to by Senator Smith of South Carolina who forced the investigation.

1897

JOHN A. COLLINS, JR., *Secretary*, 20 Quincy St., Lawrence, Mass.

CHAS. W. BRADLEE, *Acting Secretary*, 54 Canal St., Boston, Mass.

In connection with the twenty-fifth Reunion of the Class of 1897, held June 23 and 24 at the Riversea Club, Saybrook, Conn., please note the following regarding the Tennis Tournaments.

There was much interest shown in the tennis tournaments — particularly the singles — in which there were twelve entries.

Owing to the fact that many of the class did not arrive until Saturday, June 24, the tournament had, of necessity, to be played in one day. The committee, therefore, decided to have the preliminary matches of one set only, and the finals the best two out of three. This proved a popular ruling, considering the average age and weight of the contestants.

Ballou of Providence won the singles, and Currier and Ilsley the doubles. Jackson won the consolation prize in singles — by beating '97 Champion Ballou — after the tournament was over.

The prizes were thermos bottles — suitably engraved, and will doubtless prove of lasting value in spite of Mr. Volstead.

1900

GEORGE CROCKER GIBBS, *Secretary*, 25 South Street, New York, N. Y.

The first call for a dinner of the Class of 1900, in and about New York City, met with a fine response. There seems to be, at present discovered and placed, thirty-five of the Class in this section. Eighteen men promised to come; of these, six sent excuses, and one more who had refused finally showed up. Thirteen in all, a good start, and everybody seemed glad to meet everybody else — and most of us hadn't met for twenty-two years!

Here are the plans for the Winter — two more dinners, at the call of the Secretary — one in November and one in the late Spring — and a grand concentration on our presence at the Midwinter Alumni Dinner of the New York Alumni.

Much was talked about; speaking of Corporal Bailey, Barney said, "Class Membership in New York ought to consist of those who went to Tech Four Years and over." And the Class Yell: Someone said it was a "Hell of a Yell," and the originator was searched for. Anyway, Atwood has promised to frame a good one. When found, it will be Broadcasted to the Class. Also something must be done to Commemorate our twenty-fifth anniversary — since the twentieth passed unobserved.

Chalmers is modest — he is making candy, — and everybody ought to know it — it's A-1; at least, we all tried some and no one went blind.

An S. O. S. was sent to the Class treasurer — for the secretary got statistics from all present and hardly anybody knew whether he had paid his Class dues or not — we except Tuck and Merrill — for they paid them. — Atwood said it would be unheard-of in Tech circles if anybody got together once in twenty-five years, without a Touch. — Maxfield came way from Philadelphia to join the happy throng.

As far as statistics go — eleven men present were married. Much sympathy was expressed for the two, Gibbs and Merrill, who are unmarried. Non-race suicide was expressed by the fact of 29 children distributed among the families of the lucky (?) eleven.

The following notes on the fellows who were present, at the dinner, may be of interest:

George D. Atwood, president, Decorated Metal Mfg. Co., Manufacturers of Metal Spools and Lithographed Metal Boxes. — Morgan Barney, yacht designer, Greenwich, Conn. — Harry B. Chalmers, Manufacturer of Candy, Lock Box Co., Tomkinsville, Staten Island, N. Y. — Stephen M. Hall, Stephen M. Hall and Co., Inc., handling electrical machinery, old and new, and rebuilding and repairing. Principally large power equipment. Seventh and Adams Streets, Hoboken, N. J. — Harry H. Hamlin, Am. Tel. and Tel. Co., Long Lines Engineering Department, 195 Broadway, New York City. — Cyrus H. Hapgood, The DeLaval Separator Co., 165 Broadway, New York City. — Daniel E. Maxfield, With Stokes and Smith Co., Maker of paper box machinery, printing presses, and package wrapping machines. — Albert S. Merrill, Westinghouse Lamp Co., Engineering Department. In charge of Specification, Bloomfield, N. J. — Paul A. Price, treasurer and general manager Irving Iron Works; pres. The W. Irving Forge Co., Inc., Third and Creek Sts., Long Island City. — Arthur A. Reimar, consulting engineer, 156 Fifth Ave., New York City. — Harry M. Thayer, secretary and treasurer, Gardiner-McInness Co., Inc., Manufacturers White Paints of Quality. — Theodore C. Tuck,

architect, 101 Park Ave., New York City. — George C. Gibbs, general secretary, Seamen's Church Institute of America, 25 South St., New York, N. Y.

Gibbs wants to see any 1900 men who come to New York. He can be found by Telephone as follows:

Office, Bowling Green 3620; Technology Club, Gramercy 0800; Residence, Gramercy 3312.

The Class is assailed once again by the most active Secretary and Treasurer of the Advisory Council in Athletics, Allen Winter Rowe, also secretary of the Class of 1901. Rowe is asking all the Classes of the Alumni to contribute \$50.00 per year towards the support of undergraduate athletics. Students operate over thirty teams for less than \$16,000 per year. What can the secretary do? Not all the Class have contributed to the last assessment of \$2.00. Can a group of 1900 men underwrite this sum? Please — all former 1900 men, on Athletic Teams, notify Gibbs that they will contribute.

The following from the Brockton, Mass., *Enterprise*, features, George H. Leach:

"George H. Leach, vice-president of the Geo. E. Keith Co., is the veteran employee written up in this week's issue of *Factory Prints*, issued weekly by the committee. Mr. Leach went to work for the Geo. E. Keith Co., organized as such a few months earlier, on the day after Labor Day in 1897. His first work was on tags for No. 2 factory, which opened on the same day, and later was the sole employee in the stock department. A few months later, he was made assistant to D. Cary Keith, treasurer, and subsequently took over the credit department, later organizing the present credit sales department. Mr. Leach was made director of the sales several years ago, having charge of the distribution. In 1917, he was made director, in 1919, secretary, and in 1921, vice-president of the company. He originated some of the store reporting forms, which, since, with minor changes, have become standard in the trade. He has always been a believer in strong organization and in cultivating a strong personal business relationship between customer and company.

"Mr. Leach is a member of the South Congregational Church, where he is president of the Men's Club, and is also a member of the various Masonic bodies, Y. M. C. A., Commercial Club, and Brockton Country Club. He is a director of the Brockton National Bank and the Liberty Mutual Insurance Co., of Boston; vice-president of the Brockton Morris Plan Bank, a member of the executive committee of the Boy Scouts, and of the Centre Street extension committee; also a former president of the Brockton Hospital, Country Club and War Chest. He had an active part in establishing Brockton's excellent war support record, being director in Liberty Loan Drives and other war undertakings. He is also to lead the oncoming community chest drive. Mr. Leach was also on the governing boards of the Brockton Public Library, Chamber of Commerce, Centennial Committee, Y. M. C. A., and Boston Credit Men's Association.

"He has always been strong for athletics and was captain of the High school baseball and football teams, of the old Campello football team and of cadet companies in High School and Technology. He has the honor of playing on the first Walk Over baseball team. With this wide Walk Over experience in athletics, Mr. Leach asserts that the best sport of all is business. He was born in Malden, moving to Brockton when three years old, and was educated in the Huntington and Brockton High Schools, for a time attending the Massachusetts Institute of Technology. He is married, has two children and is living on South Street, Campello."

Clinton D. Thurber, Commander, Corps of Civil Engineers, U. S. Navy, is transferred to Boston. His letter is welcome news:

"After a three-year tour of duty in this 'Paradise of the Pacific,' I have just been detached and expect to receive orders for duty at the Navy Yard, Boston. A more striking contrast in the nature of the duty as well as in all other conditions can hardly be imagined. Here, we have been rushed to death on important construction; at Boston, of course, there will be absolutely nothing doing in the construction line. Similarly, in climate and living conditions in general, there will be a complete reversal of form. However, Boston will look pretty good to me. I am going back via the Panama Canal and will probably not reach the East Coast until about the first of October. I shall then hope to get a little leave of absence, and following that, I shall look forward to renewing my acquaintances with all the 1900 fellows who are within hailing distance of the old stamping ground."

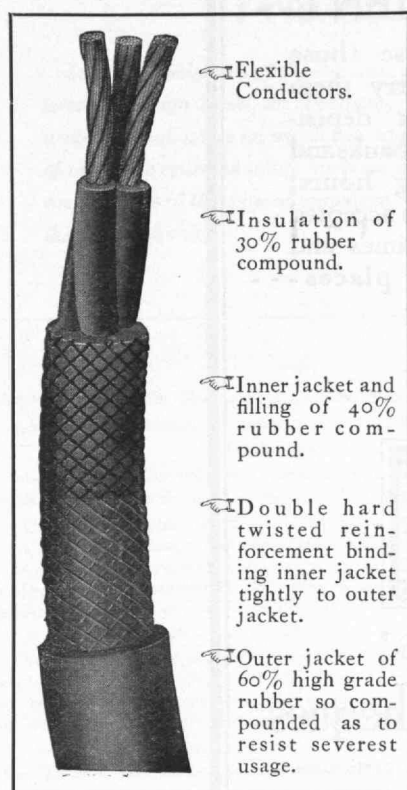
Ingersoll Bowditch writes that he and his family are just home from a very successful summer at Chocorua, N. H. He says that Fred Everett is having a good deal of difficulty in satisfying the citizens of New Hampshire with good roads, bad weather and increased automobile traffic have made it difficult to keep the State roads in order. We believe in Everett, however, and deprecate the appreciation of the citizens of New Hampshire.

Raymond D. Borden is with the Clarke-Leu Co., Inc., South Broadway, Albany, N. Y. The following addresses have recently been received from the Alumni Office: Frederick W. Snow, c/o P. H. Baker, 59 Farragut Road, Swampscott, Mass.

Subsequently, the following clipping from the *Boston Evening Transcript*, of the date of July 11, 1922, has been received:

"Mrs. Maud Graham Snow, wife of Fred W. Snow, formerly of Lynn and Swampscott, died at Cape Town, South Africa, on July 9, from pneumonia, according to a cable message received by Mrs. Perley H. Baker, 69 Farragut Road, Swampscott, a sister of Mrs. Snow. The cablegram stated that Mrs. Snow and her husband and twelve-year-old boy, Lambert, were homeward bound, from a three and a half-year stay in the Congo belt. Interment was in Cape Town. Mrs. Snow was born in Lynn on February 16, 1878, and was a daughter of Mr. and Mrs. George W. Graham."

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The class extends its sympathy to Mr. Snow and his son. Any details about Snow from anyone in the class would be greatly appreciated by the secretary.

1901

ALLAN WINTER ROWE, Secretary, 295 Commonwealth Avenue

Greetings! and likewise salutations!

Whether as a result of your Secretary's last appeal, couched as it was in moving terms — forgive a professional reference — or whether the members of the class of 1901 have had belated attacks of conscience, your Secretary is unable to say. However, the pleasing result has been a very satisfactory series of statements from a number of members of the class. In one instance, particularly, your Secretary wishes to acknowledge that in the familiar parlance of bygone days now unhappily obsolete, except to the favored few, the drinks are on him. Mat Brush, after receiving the insistent — and some say offensive — demand for personal information, sent to your Secretary a statement of his varied and diverse interests. They form a most imposing list and aside from the fact that your Secretary rejoices in a counter attack at his expense, there is also a very great sense of gratification that any member of the class has attained a position of such definite importance touching so many widespread and diverse interests. Mat's chief job is Senior Vice-President of the American International Corporation, but in addition he is either President or Director or both of sixteen (16) other large affiliated corporations; director in seven (7) companies outside of his primary interests and affiliated with a number of administrative and deliberative commissions and associations of National and International scope. As a member of the Paraguayan Group Committee of the Inter-American High Commission, your Secretary is profoundly interested to know what the job is. Anyhow, it looks good.

In the morning mail came the announcement of Ralph Stearns' marriage on September 25 to Miss Margaret Dewar. Their present address is the Hotel Gramatan, Lawrence Park, Bronxville, N. Y. With Ralph's wide acquaintance in the class, this intelligence will be pleasing to many. The Secretary has already conveyed the good will of the class and their good wishes to one who served as the Class Secretary through several stormy administrations. The address above permits individual members to send their greetings.

W. W. Dow, writes to your Secretary acknowledging the receipt of what he calls a "bum financial statement." With tears standing in my aged eyes, and a voice palpitating with emotion, I acknowledge the justice of his comment, though I deplore its causticity. Those of you in the class whose lives bring

them into the busy marts of trade, in daily contact with financial problems of stupendous magnitude, should have the kindly sympathy for one living the cloistered and secluded life of your Secretary. Which reminds me of a story. A number of years ago one of the rural districts in the western part of Massachusetts returned as their representative to the General Court a gentleman who, until that time, had had no experience in public office. As time went on, it was noted, that while he might vacillate in his decision concerning the desirability of many of the bills presented, inevitably, and with a joyous vociferousness, he voted in the affirmative for any bill calling for the outlay of money. It is no disloyalty to the real and true members of our General Court to say that occasionally such a bill is presented in which the proposed expenditure is perhaps a thought injudicious. This fact was brought to his attention one day by one of his colleagues who counseled consideration and deliberation before agreeing to unrestrained outlay of the taxpayers' money. Whereupon, the representative drawing himself majestically to his full height of five feet and one inch, replied as follows:

"I was born in Boston, but my people moved to — when I was eight weeks old and I've lived there all my life. I never undertook but one financial operation of magnitude, and that was the building of a henhouse. I never got it done, because I didn't have money enough to finish it, and by God you can't stop me spending money now."

This story has a moral. Willard states that he has not his record available, without suggesting where it might be obtained. The fell import of this omission will be patent to all. Further, your Secretary's next financial report will be in conformity to the very best standards.

Joe Evans, President of the Adams, Evans & Company, and also Vice-President of the Atlantic Loading Company writes from New York. Whether this latter activity is a residuum of professional activities prior to the drear days when we made the world dry for Democracy, or not, your Secretary is unable to say. On his next visit to New York, however, he purposes securing the necessary data and if the results warrant, will see that other members of the class are properly informed. Joe's firm is carrying out road building contracts in Pennsylvania, New York, North and South Carolina, Florida and Georgia at the time of his writing. Your Secretary hopes that on Joe's next visit to Massachusetts, he will look over the roads here in the certainty that he will find ample scope for any endeavor that the company may make.

N. K. B. Patch is Secretary and Works Manager of the Lumen Bearing Company. He writes that their product is a full line of brass and bronze castings. Babbitt metals, solders, and non-ferrous ingots, all produced under exact metallurgical and chemical control. He also tells me that Solan Stone with himself, are two of the three members of the Executive Committee of the



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Buffalo Technology Club. Pat sends a warm invitation to any Technology men visiting Buffalo.

Lammot DuPont, C. K. Flint, Freddie Freeman, and Al Arnold sent in their names and the modest subscription for which the Class Secretary has importuned you all. They are, however, entirely silent as to "interesting news" which I feel must result from innate modesty rather than lack of material.

Farnum Dorsey writing from Rochester, N. Y., says, laconically, "No change." I hope that he, too, is not suffering from the financial stringency that bulks so large on your Secretary's horizon.

John Brownell is in New York with the Equitable, carrying on office and fieldwork in accident prevention in connection with group insurance.

Arthur Davis, from whom we have not heard for lo! these many years, has returned to the home of his birth and is Treasurer of the Frank E. Davis Fish Company.

Fred Connolly retired from business in 1920, and is now teaching in the rehabilitation division for ex-service men.

W. G. Blauvelt is with the Department of Development and Research of the American Tel. & Tel. Company of New York.

To conclude for the moment, this summary, Perk Parrock is in Hopedale, Mass., carrying on some special work for the Draper Corporation. In spite of his reiterated statements, evincing a desire to foregather with his little friends in Boston, we are all still waiting for a glimpse of his genial countenance. The welcome is still here, however, and, editorially speaking, we are prepared to make good all promises.

In conclusion, the writer wishes to say that, as you all know, the "Review" is now under a new management, has changed its form and is to be issued as a monthly. With a knowledge bred of several years of association with the Senior Editor, your Secretary has no hesitancy in affirming that class notes from this class will appear regularly every month. The only possible alternative will be an interesting pathological session, with all that remains of your devoted Secretary.

1902

FREDERICK H. HUNTER, Secretary, Box 11, West Roxbury, Mass.

BURTON G. PHILBRICK, Assistant Secretary, 585 Boylston Street, Boston, Mass.

Redfield Proctor was nominated as the Republican candidate for the Governorship of Vermont at the Primary election in September, winning the

contest by about 5000 majority. As we have not heard of a Democrat being elected to State office in Vermont for many years, it looks more than probable that early in November, '02 will have a real live Governor among its membership. Congratulations of the classmates will be extended to "Red" on his political success. His father was Governor prior to his long and active service in the United States Senate, and his older brother, the Hon. Fletcher Proctor, has occupied the Gubernatorial chair, so that a third "Governor Proctor" will sound quite natural.

Franklin T. Root, Treasurer of the Textile Publishing Co. of New York, has been elected to the Board of Directors of the United Publishers Corporation which controls a number of trade papers in the Dry Goods, Iron and Steel, and Automotive fields. The Textile Publishing Co. issues the *Dry Goods Economist*, the *Dry Goods Reporter*, the *Dry Goodsman*, the *Atlantic Coast Merchant*, and the *Pacific Coast Merchant*.

Walter Pember was in Boston in July for a few days and was the guest of Greeley at a luncheon at the Architectural Club where Kellogg, Philbrick, Ritchie, Sherman, Adrian Sawyer, and Hunter were present. Pember reported the formation of the Architectural firm of Pember, Whittemore & Demers, Inc., who are successors to Pember and Campaign, the latter firm having been dissolved, owing to the sudden death of Mr. Campaign. Pember's new partners are younger men who had been associated for some years with the old firm. The headquarters of the firm is at 24 James St., Albany, N. Y., with branch office in Troy. Pember reports that the new firm is starting its first year with a number of commissions, including several large school buildings.

Les. Millar was in Boston in August, visiting relatives, and called on a number of classmates, but unfortunately did not connect with the secretary who was on a brief vacation in New Hampshire.

"Bill" Kellogg moved into his new residence, 105 Woodland Road, Chestnut Hill, Mass., in August.

Very little news has come into Class headquarters during the summer. Information blanks preparatory to the condensed Directory of the Class, which is to be published this winter, should reach all classmates about the same time as this issue of the "Review." Prompt attention is requested in filling out and returning the blanks, so that the list may be compiled on time.

Classmates are also urged to report at once to headquarters any matters of interest concerning themselves and other classmates, as the new schedule of the "Review" calls for monthly issues.

Travel

In acknowledgment of the constantly increasing interest in foreign travel, the Technology Review inaugurates a set of pages on which will appear advertising of reputable concerns whose business it is to deal with some feature of this type of commerce. We recommend them for patronage.

1904

HENRY W. STEVENS, *Secretary*, 12 Garrison Street, Chestnut Hill, Mass.
AMASA M. HOLCOMBE, *Assistant Secretary*, 3305 18th Street, N. W.,
Washington, D. C.

As these are the first 1904 notes to appear in the rebuilt, redesigned "Review," the secretary desires to make a few remarks concerning Class notes.

There is now being conducted, a campaign to increase the membership of the Alumni Association, and one of the chief talking points in the endeavor to obtain new members, is the subscription to the "Review" which accompanies membership in the Association. It is pointed out that through the "Review," the members are kept in touch with Technology affairs of all kinds and particularly with one's classmates, through the section devoted to Class notes.

Now, the secretary acts as a transmitter of all interesting bits of news regarding the men of 1904, and their doings, of which he can learn, and as may be remembered some issues have contained considerable news, some have contained little news and some have had no news at all.

Assistance and coöperation are needed in order that the monthly issues of the "Review" may always contain something about the members of the Class of 1904.

Now for the personal touch. (Do not throw the magazine away, but read on fearlessly, no money is about to be demanded.) As you read this, can YOU not think of something YOU can tell me about yourself or some other classmate, that everybody who reads the notes will be glad to know. If you can, will you not take the trouble to send it to me. We want the "Review" to become the official publication of the Class and if it is to be that, we must have '04 stuff in every issue. Nearly fifty per cent of our Class are not now members of the Association, and letters are being sent to them urging them to join. It will be a great disappointment to such men, if they do not find a good amount of news in the forthcoming issues. Think it over, and see if you can help me to make our part of the "Review" a success.

Under date of August 17, a letter from A. M. Holcombe, assistant secretary, reveals the fact that 1904 is still leading the procession in some respects.

"Just to let you know that I got back safely after the big time. Sweetser got me over to Megansett safely and I had another swim before leaving the neighborhood. They say the Woody Hole course is better than Wianno, but I think that is merely jealousy, and did not fall for it.

"My real reason for writing you is that Mert Emerson was the first visiting Tech man to occupy the newly-decorated Technology room at the University Club here. In fact, he was the first guest, and it will cost him an '04 stein for the mantle. The Club has set aside a number of bedrooms, one for each college, and they are being decorated by the local Alumni Associations. We finished ours this week, and when I looked in to inspect it with P. L. Dougherty, '97, who is the Club secretary, we found Mert's well-known stuff scattered about as naturally as though he were there for the summer. I wish you would publish the fact in the "Review," as he doesn't know about owing the stein yet, and it will be a nice surprise for him.

"Don't forget to tell the boys to bring their sticks the next time they come down here to explain away their income tax and I will show them as much of a real golf course as they can struggle over (or through, as there are several brooks in awkward spots). I have the ice and ginger ale, but they will have to bring the rest, as this is a law-abiding community."

Now that the facts have been duly published, the secretary will take up with Mert, the matter of providing the stein for the mantle.

During a recent interview obtained by the secretary with Mr. M. L. Emerson, general manager of the American Pneumatic Service Co., Mr. Emerson stated that he had just returned from New York City, where he had been engaged in starting up the pneumatic tubes in the Post Office service. It will be remembered that the tube mail service was discontinued in many cities, including Boston, during the régime of Postmaster-General Burleson. Now that the American Pneumatic Service Co., through the efforts of Mr. Emerson, has succeeded in resuming operations in New York City, we may hope for its re-establishment in Boston.

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1904 Continued

It is with the deepest regret that the secretary is obliged to record the death during the past summer, of Mrs. Don L. Galusha.

R. A. Wentworth, who associated himself with the Barrett Co., not long ago, has been made assistant to the president of that company, and is in active charge of all their factories.

It has been known for a long time that Kalmus and Comstock have been actively engaged in perfecting a method of producing moving pictures in color. Several years ago the secretary had the pleasure of witnessing a trial production in Tremont Temple, and at that time the pictures seemed perfect to the layman in such matters, but subsequent conversation with the inventor revealed the fact that they were not satisfied. The following clipping from a recent Boston paper, shows that they have continued their efforts, and are now about ready to place their results before the public.

"A Boston man, Dr. Herbert T. Kalmus, a chemical engineer, associated with the industrial engineering firm of Kalmus, Comstock and Westcott, Inc., 110 Brookline Ave., has been chosen president of a million-dollar syndicate just formed in New York for the production of movies in color.

"Announcement of the formation of the syndicate, which is composed of 45 business men of Boston, New York and other cities, is made by William Traverse Jerome, former district attorney of New York county. Laboratory and development work is being done in Boston.

"The process of coloring motion pictures in their natural tints was invented by Daniel Frost Comstock, a scientist and engineer, for several years a member of the faculty of the Massachusetts Institute of Technology.

"Although Mr. Comstock has been working on the process for more than seven years, and Mr. Jerome and some of his associates have been interested in it for more than two years, they have not yet shown a complete film, but will be ready for a New York public exhibition some time in October.

"Mr. Jerome explained that this first five-reel film had been made largely as a sample, and that it was not the intention of the new company to enter the producing business. He said that it was the idea to sell the use of the patents to other moving picture companies and to color their films for them.

"Under the process devised by Mr. Comstock, the negative is developed just as an ordinary film, and then is passed through additional chemical baths and processes for the fixing of the colors in tints natural to the objects shown on the films. Mr. Jerome said that the cost of treating the film in this manner was negligible, and that he expected that at least 10 per cent of the moving picture films of the country would be colored in the future."

1906

J. W. KIDDER, *Secretary*, 50 Oliver Street, Boston, Mass.

EDWARD B. ROWE, *Assistant Secretary*, 92 State Street, Boston, Mass.

The new editors of the new "Review" have resorted to the last word in announcing their plans by employing "broadcasting." The first "broadcast" was received O. K. by '06. It called for class notes in every other issue of the monthly "Review." The second "broadcast" announced that some of the secretaries protested at being allowed to submit notes only every other month, as they wished to send in notes every month. Said secretaries must have been using some sort of a regenerative receiver in order to produce a howl of that sort. More power to them! Of course, we won't mention any names but, as for us, we propose to stick to the original schedule, namely, to insert notes in the alternate issues.

Personally, we have made a resolution to improve the quantity of '06 notes. If the increase justifies publication each month, we will see if it can be arranged with the editors. Meanwhile, our present concern is to dig up something to send in today, which is the closing date for notes.

The editors appear to be serious about the date. Apparently, they are not going to be as lenient as Editor Rogers used to be. Speaking of Editor Rogers, he certainly was good to us. Notes used to be due the fifteenth of the month with the twenty-fifth as the last date, but we know of one secretary whose class had a reunion, which ended about the twenty-eighth, the account of which was written up a day or two later and then included in the "Review." All of this combined with the fact that Rogers was a Harvard man! The older we grow, the more we can see how narrow we were in the old days when we could not understand how anything good could come out of Harvard! The Class of '06 certainly appreciates Rogers' work with the "Review" and wishes to go on record to that effect.

However, this is supposed to be devoted to class notes. By this time, it is unnecessary to state that they are not abundant.

Jimmie Banash was in town a few days ago on one of his flying visits. These visits are very refreshing and usually productive of news. The secretaries spent a whole lunch hour with him but even now there is one, at least, who does not understand what or whom he is doing! He seems to be spending his time on "safety" work and at present is chairman of the Electrical Committee of the National Safety Council. His headquarters are in Chicago and his field the U. S. A. Banash advised that E. M. Eliot is now with the Underfeed Stoker Company, Detroit, Michigan. It is understood that Eliot is quite an authority on boiler accessories.

A card has been received from Fay, Spofford & Thorndike, Consulting Engineers of 200 Devonshire Street, Boston, announcing that Carol A. Farwell and Ralph T. Jackson have been admitted to partnership. Farwell and Jackson have been with the concern for some time and the Class congratulates them on now being members of this growing engineering organization.

Ray Barber came on from California early in September and paid a flying visit to Boston. Barber is engaged in consulting engineering work in California.

1907

BRYANT NICHOLS, *Secretary*, 2 Rowe Street, Auburndale, Mass.

HAROLD S. WILSON, *Assistant Secretary*, Manchester, N. H.

Continuing from where we left off in the notes in the July "Review," the following information regarding '07 men is taken from the statistics sheets returned last June, together with a few more recent items:

James A. Correll, a Course VI man, is associate professor of electrical engineering at the University of Texas, Austin, Texas. He has been at the University ever since 1907. During the summers of 1917 and 1918 he had charge of the Engines Division at the United States School of Military Aeronautics. Correll has four daughters, ranging in age from thirteen to five.

Consulting mining engineer, with headquarters at 79 Milk St., Boston, making frequent trips to Arizona, and occasional journeys to Mexico or South America, always hopefully looking to the day when he will strike it rich and make a fortune, always genial, and a loyal Technology and '07 man—that's Sam Coupal. Sam is one of our few unmarried members. George A. Crane, manager of John Bollin Co., Contractor, 2031 First National Bank Building, Detroit, Michigan, has followed closely his civil engineering training since 1907. He gives us this little rhyme:

A lot of structures scattered round
From old Quebec to Puget Sound
And everywhere between:
A job up in Saskatchewan,
A year spent down in old Tucson —
That's where I've be-e-en.

Crane has two sons, a daughter born in 1917 being deceased.

Ralph Crosby, the man with more changes of address since 1907, and with more children than any other man in the Class! Six children (five girls and a boy) and ten different addresses. Just now (so far as we know) Ralph is a construction engineer, associated with Owen Ames, Kimball Co., 536 Michigan Trust Building, Grand Rapids, Mich.—Carroll Sisson Dean, electrical and mechanical engineer, with Neff & Thompson, architects and engineers, 600 Seaboard Bank Building, Norfolk, Va. A boy and a girl help to make his home at 617 Pennsylvania Ave., Norfolk, a lively place.—Victor H. Dickson after having worked in several different lines is instructor in higher accountancy at La Salle Extension University at Chicago. Dickson is not married.—Parker Dodge is a member of the firm of Dodge & Sons, patent attorneys, 724 Ninth St. N. W., Washington, D. C. Dodge received the degree of LL.B. from George Washington University in 1912. During the war, he reached the rank of major in the Ordnance Department. He married Charlotte Phelps (M. I. T. 1916) in 1917, and they have two boys and a girl.

Clifton N. Draper is assistant production manager of the switchboard department of the General Electric Co., at Schenectady, N. Y.—Cliff followed chemistry until 1910, then took a course in law at Georgetown University, and became a patent attorney with General Electric Co. in 1912. He has one child, a daughter.—S. J. Egan is one of the few naval architects of 1907 who has stuck to that line of work. He is chief draftsman of hull engineering at Boston Navy Yard, Charlestown, Mass. Egan has two daughters and two sons, and he has a real man's problem to work out, as his wife died last March, shortly after the birth of the youngest child. You have the sympathy of every '07 man, Egan.—Otis G. Fales, the banjo player of undergraduate days, says he is the general "filler-in" of the Gregg Co., Ltd., of Hackensack, N. J. Whatever that may mean, we understand he has made good in a large way. Fales is married, but they have no children.—Harold P. Farrington is president and treasurer of the Peninsular Trading Agency, Inc., crude rubber importers, 43 Cedar St., New York City. He has one son, a year and a half old.—Cornelius S. Fleming is chemist in charge of paint and varnish manufacture with the Paraffine Companies, Inc., at San Francisco. His residence address is 1222 Carlotta Ave., Berkeley, Calif. Two children, Betty and Tom, make life glad for Fleming and his wife.

Harry A. Frame, general superintendent of the National Products Co. at Cleveland, Okla., with a wife and two daughters. That's all the information he gives us.—John M. Frank—the old reliable John who always comes East for reunions—is vice-president of the Ilg Electric Ventilating Co., at 2850 N. Crawford Ave., Chicago. He has one daughter.—Roger D. Gale, chief chemist of Sanford Mills and of the Reading Rubber Mfg. Co., at Reading, Mass., has one son. Roger is rather a quiet chap, but we understand that he has done some valuable research work in his chosen line.—James E. Garratt is an engineer with the Board of Water Commissioners, Hartford, Conn. Jim has three children.—John M. Gaylord, electrical Engineer with United States Reclamation Service, with headquarters at 412 Tramway Building, Denver, Colo. He has designed and built fifteen power plants. Several hundred miles of transmission lines, numerous pumping plants, and many large reservoir outlets. Two children for Gaylord.—Gardner S. (Tommy) Gould is general superintendent for Roy H. Beattie, engineer, 10 Purchase St., Fall River, Mass. Two children here also.—Albert E. Greene who was with '07 for our fourth year only, and who specialized in electro-chemistry, has persisted in that line and is an electric furnace builder, doing business under the name of Greene Electric Furnace Co., at Hoge Building, Seattle, Wash. Albert has four children, the last two of whom born in 1920 are twins.—Phil P. Greenwood is assistant to the inspecting engineer, the Panama Canal, Room 240, Old Land Office Building, Washington, D. C. Two children, we report again.

George Griffin is assistant designing engineer, Water Supply Board, Providence, R. I. He says that he would like to show their big water works

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plant to all '07 men, so when you are in Providence look him up at 661 Westminster Street. Three children for George.—Wheaton I. Griffin has been with Griffin & Hoxie, wholesale grocers, at Utica, N. Y., ever since 1907. A boy and a girl call "Wheat" dad.—Ralph N. Hall, whom we occasionally see in Boston, is manager of the electrical department of the United Shoe Machinery Corporation, with his office at 205 Lincoln St., Boston. Ralph has three fine sons.—Frank E. Hamilton of Course VI is chief engineer for W. J. Rainey, Inc., (mining coal, beehive-coking) Rainey-Wood Coke Co. (by-product coking,) and General Water Co., at 52 Vanderbilt Ave., New York City. Hamilton has two sons.—Lawrence C. Hampton is resident engineer with Union Oil Co. of California, located at 1306 Union Oil Buildings, Los Angeles, Calif. Married, but no children.—Hudson B. Hastings, research economist with the Pollak Foundation for Economic Research, lives at 58 Garden Road, Wellesley Hills, Mass. An outline of some of Hud's work was given in a number of the "Review" last spring. During the war, he was chairman of the Fresh Fish Division of Federal Food Administration for Oregon, and was also economist and auditor for Portland, Oregon, Milk Commission. He was almost a dictator in regard to prices and rules governing the salmon industry of Oregon, which is a business amounting to about \$10,000,000 a year. His recommendations were always subject to review by the authorities at Washington, but they were rarely modified. Outside of his professional field, he considers the most important work he has done was as chairman of the Committee of One Hundred, which secured the adoption of the Prohibition Amendment to the Oregon Constitution in 1914. "Hud" has four children.—Warren Hastings, a bachelor, is mine superintendent for the New Jersey Zinc Co., at Ogdensburg, N. J.—Clarence D. Howe, one of our most successful classmates, is in business for himself as a consulting engineer, his firm being C. D. Howe & Co., 707 Whalen Building, Port Arthur, Ontario. He reports that he has built grain elevators with approximate value of \$20,000,000, pulp mills value \$3,000,000, coal docks value \$1,500,000, bridges, warehouses and general work \$2,500,000. Clarence is married, but has no children.

We now have a Tech Professor from '07 in the person of Ralph G. Hudson, who is associate professor of electrical engineering at the Institute. Ralph also is consulting engineer for various companies, and has done considerable research work for the Emergency Fleet Corporation. Ralph has three children.

We think we have taken about enough space in this number and will leave some more for the next "Review." One up-to-the-minute item about O. L. Peabody, however. "Peabo" is sales manager for George H. Morrill Co., ink manufacturers at Norwood, Mass. He left Boston on September 1, 1922, and Vancouver, B. C., on the "Empress of Russia" on September 7, for a six months' trip to Japan and China. He goes as representative of the Morrill Co., under the auspices of the American Trading Company of New York City.

This is a large export company with offices all over Japan and China, doing a large and varied business in all classes of materials. They have sold the Morrill inks for years, and Peabody goes to straighten out any technical trouble and to introduce new inks and materials. He will be located in Tokio, Yokohama, Kobe, in Japan, and at Shanghai in China.

1908

RUDOLPH B. WEILER, *Secretary*, 340 N. Penn St., West Chester, Pa.

LINCOLN T. MAYO, *Assistant Secretary* 181 Mass. Ave., Boston, Mass.

No notes received from the Secretary.

1910

DUDLEY CLAPP, *Secretary*, 40 Water Street, East Cambridge, Mass.

As usual, the communications to the secretary have been few. If you want to make the Class Notes interesting, you must take your pen in hand or your typewriter in your lap and indict a few brief lines to the secretary, telling what you're doing. The "Review" is to be monthly from now on. Let's get some notes in every month.

The *Washington Post* published a very interesting account of the laying of the cornerstone of the East Gate Lodge, No. 34, F. A. A. M., Washington, D. C., on September second, and describes a speech of the master of the lodge, Kenneth P. Armstrong, Course I.—Fay, Spofford and Thorndike, consulting engineers, 201 Devonshire Street, announce that they have taken into partnership, Ralph W. Horne, Course XI.—R. O. Fernandez, X, has been made technical adviser of the sales department of the Merrimac Chemical Company.

The Norwich, Conn., *Bulletin* describes the wedding of Earl W. Pilling, I, as follows:

"At the home of Luther Pilling, North Main Street, Wednesday afternoon, Miss Ruth Parker Farnsworth and Earl W. Pilling, both of Dedham, Mass., were united in marriage by Rev. C. C. Tibbetts, pastor of the Methodist Episcopal Church. The bridal couple was unattended. The wedding was a quiet home affair and the guests included only members of the families.

"Mr. and Mrs. Pilling left during the day for a visit in Maine, after which they will occupy a home they have made ready in Dedham, where Mr. Pilling has been engaged for a number of years as a civil engineer and where his bride has for several years been in the office of the registrar of deeds at the courthouse building.

"Mr. Pilling, a son of Mrs. G. M. Pilling of Broad Street and a nephew of Luther Pilling and Miss Emma Pilling, is a graduate of the Massachusetts Institute of Technology. He is a veteran of the World War, in which he was assigned to the engineer forces."

1910 Continued

The *Chicago News* has something to say about Ed Stuart, XI.

"After a man has wandered over half the globe for twelve years, it's pretty good to settle down. At least, this is the opinion of Edward Stuart, recruited from the Red Cross by the Society for Visual Education, which has its headquarters in Chicago. Mr. Stuart was graduated from the Massachusetts Institute of Technology in 1910 as a sanitary engineer. Two years later, he was assistant chief of a big sanitation project in Brazil. He returned to take an advanced health course in Harvard and in 1915 was sent to Serbia as sanitary engineer of the American Red Cross to combat typhus. In a few months, he was made head of the commission, which he led through Albania with the retreat of the Serbian army. Following, he directed the Red Cross relief in the Balkans, leaving when the United States entered the war. The Red Cross sent him to Guatemala in 1918, with relief for the earthquake sufferers.

"Since the war, Mr. Stuart has been director of health propaganda in France for the Rockefeller Foundation and served in the same capacity for the League of Red Cross Societies in Geneva. Immediately before his present engagement, he was director of disaster relief for the American Red Cross."

The Portland, Maine, *Express* in July announced the marriage of Gorton James, I, to Miss Margaret Adams Hobbs of that city. James is instructor in factory management in the Business School at Harvard.

The *Madison-Wisconsin Journal* publishes the following about a store managed by Walter Dray, II.

"Madison will open its first 'mechanical' store in about a week in the old quarters of the American Exchange bank, King and East Main streets, just off the square.

"The store, also one of the first of its kind in the Middle West, will carry a complete line of popular mechanical and electrical appliances, all auto accessories and tires, auto oils, complete radio receiving sets and equipment, and children's mechanical toys.

"It is one of a chain of stores of the Retail Chain Stores Corporation, Chicago, which developed the idea of selling mechanical and electrical apparatus as a specialty. The corporation places in management of its stores university trained men. In charge of the Madison store are Walter Dray, a graduate of Massachusetts Institute of Technology, and Robert T. Evans, a graduate of Armour Institute, Chicago. It is proposed to associate a local man with the store who will eventually assume active management.

"The old bank quarters have been entirely remodeled and renovated. A large display window has been placed on King Street."

1911

ORVILLE B. DENISON, *Secretary*, 63 Sidney Street, Cambridge 39, Mass.

JOHN A. HERLIHY, *Assistant Secretary*, 588 Riverside Avenue, Medford 55, Mass.

Greetings to the new editors, Messrs. Lobdell and Hodgins, and best wishes for the success of the revived mouthpiece of the Tech alumni!

Heralded by a characteristically clever and quaint card from the parents, word has been received of the birth of David Coulter Stewart on August second, weight nine and one-quarter pounds. "O. W." made this announcement in rhyme: "Oswald and Pearson I may not surpass, But I find I am needed, nevertheless." Congratulations, Mr. and Mrs. Stewart!—From New Jersey "Bob" Morse announces the arrival of Elizabeth Jane Morse, weight seven pounds, twelve ounces, on September fourth. He added that both f. w. and the b. g. were doing well, which is good news. Fine work!

Two wedding announcements have been received:

Mr. Leslie Gordon Glazier and Miss Gertrude Louise Kenney announced their marriage on Monday, July twenty-fourth, Pittsfield, New Hampshire.

Mr. and Mrs. G. Fred Lyon announce the marriage of their daughter, Marion Louise to Mr. Wesley T. Jones, on Saturday, the sixteenth of September, Danbury, Connecticut.

To both of the couples, we wish long life, health, happiness and prosperity!

Who do you suppose has gone up to Canada to live, work and enjoy certain freedoms? Bet you can't guess! Lil' Wilyum Pead, formerly of Lowell, Massachusetts. Yep, he and his wife and young hopefuls have gone to Montreal, where Bill has accepted the superintendency of the Hochelaga Gas Works of the Montreal Light, Heat and Power Consolidated.—Jim Duffy, admittedly happy and contented in his connubial bliss, now has "James F. Duffy, Industrial Engineer and Accountant," engraved on the top of his business stationery and is now associated with A. E. White & Company of Chicago, a well-known firm of consulting, industrial engineers.

Under the new editorial policy of the "Review," it is desired to have class news in each issue, which is simply another way of emphasizing the famous 1911 slogan: "Write to Denniel!"

1912

F. J. SHEPARD, JR., *Secretary*, 568 East First Street, Boston, Mass.

The following account of the reunion from the pen of D. J. McGrath gives a lurid picture of events as they really happened. Our secretary is deeply indebted to McGrath for his efforts in adhering to the strict truth in all cases.

"Sore, but satisfied!"

That probably expresses as well as anything the way thirty-three members of M. I. T. 1912, and twenty of their wives felt, at the close of the big decennial reunion at Mayflower Inn, Plymouth, Mass., June 16-19, 1922.

And the soreness was in no respect mental, but entirely physical, the result of too much baseball, potato racing, pitch playing, or maybe too many encores

of steamed clams. The only "holler" that was put up at any time was Weenie Schell's big squawk about the awarding of the prizes. Of which more, anon!

One thing is sure. Although lots of good men were not there, every lad and lassie that did attend was "regular." The very best of 1912 was there. If you weren't present, you missed something. Here's the roster, as registered. See how many of your friends you might have met again.

Leaving the M. I. T. Plaza on Friday noon, were:

H. G. Manning, X, Marcel Desloge, IV, E. L. Homan, III, in first car. Mr. and Mrs. C. W. Somers, IV, Mr. and Mrs. C. E. Morrow, IV, in second car. Mr. and Mrs. J. M. Pettingell, I, E. W. Tarr, III, R. J. Wiseman, VI, in third car. Mr. and Mrs. W. H. Lange, I, Mr. and Mrs. V. G. Sloan, I, in fourth car. Mr. and Mrs. Clarence McDonough, I, Mr. and Mrs. R. M. Ferry, II, F. J. Shepard, Jr., VI.

Arrived Friday afternoon:

Mr. and Mrs. P. R. Williamson, I, Mr. and Mrs. L. M. White, X, Mr. and Mrs. H. M. Foley, VI, Mr. and Mrs. R. E. Wilson, II.

Arrived Saturday:

J. W. Lovell, II, and Miss Lovell, J. P. Lovell and Miss Vining, Mr. and Mrs. J. L. Barry, VI, D. J. McGrath, VI, P. W. Dalrymple, IX, W. J. Murray, X, Mr. and Mrs. H. L. Woelhing, VI, Mr. and Mrs. H. S. Benson, II, Mr. and Mrs. J. W. Whittlesey, II, Mr. and Mrs. W. N. Gere, II, Mr. and Mrs. E. W. Schell, II, C. H. Morrill, II, L. S. Walsh, X, Mr. and Mrs. C. F. Springall, IV, W. T. Roberts, I, J. W. Raymond, I.

It was 2.15 p. m. Friday when an impressive fleet of automobiles — some flivvers, too — started from the new buildings at Cambridge, headin' south for Plymouth. The only excitement on the trip was when Doc Sloan and Doc Wiseman spent \$1.35 to buy out a 5- and 10-cent store's supply of tin horns, trick hats and other junk.

Arrived at Mayflower Inn, the first song on the program was a dance — masquerade ball they called it. Then, after all the respectable people went to bed, a select bunch of dumbbells decided to stage a pitch game, which intermittently, perhaps, lasted the rest of the reunion. The perpetrators of this felony are reported to have been Tarr, Morrill, Wiseman and Wilson. It is said that the W.'s, Wilson and Wisey, paid for the party. Maybe Williamson would have been there, too, only he is just serving the first few weeks of a life sentence of martial servitude and hasn't learned all the tricks yet.

Only fragmentary details have been gleaned of this whole affair, as a result of the investigation started by Mrs. Wilson to secure an explanation of her spouse's absence from his room the greater part of the night. If evidence of any further felony is brought to light at a later date, bulletins will be issued when the news comes out.

First on Saturday's program was a swim in the North Atlantic surf, but it turned out to be like the Chinaman's banquet — two kinds of duck — duck in, and duck out! The only man who actually got in the icy water above his ankles, fell in, and he was resuscitated only after several hours' application of hot water bags and alcohol — inside and out. He said it was worth it, but he would prefer sudden death by lightning.

When it comes to telling about the baseball game, we feel that only Ring Lardner or McGeehan of the *New York Herald* could really do it justice. The Reds vs. the Grays played five rounds (yes rounds, not innings) and averaging up the scores kept by six different statisticians excluding the Umpire, whom nobody trusted, the final result was about 1912-0 in favor of the Reds. As first-baseman for the Reds, the writer admits with justifiable pride, that while the Reds may not have been the greatest run-getters in the World, they sure were the biggest liars, as the score will attest. The two baseballs got a number of baths in the ocean and both teams agreed that the Umpire — Ray Wilson — deserved one also, and they tried to give him one. He was only saved by the tears and pleadings of his poor little wife. The number of home-runs knocked would make the Infant Ruth — late King of Swat — turn green with envy. One lusty son of Tech even clouted a ball over the head of McDonough, the 6' 6" tubular pole from Pittsburgh, and that's going some.

The game was called in the 5th on account of rain and exhaustion:

Baseball line-up was as follows:

REDS		GRAYS	REDS
Foley	Pitcher	Homan	White Center Field
Somers	Catcher	Ferry	Manning Right Field
McGrath	First Base	Pettingell	
Sloan	Second Base	Williamson	GRAYS
Morrow	Third Base	McDonough	
Tarr	Short Stop	Sloan	Wiseman Center Field
Lovell	Left Field	Barry	Merrill Right Field
		Umpire — Wilson	

Speaking of rain — it rained most of the time during the reunion and while official rainfall measurements are lacking, it was approximately 3.1416 fathoms, corrected for temperature and reduced to mean sea level, daylight saving time. But the rain dampened nothing more than neatly pressed trousers, straw hats and freshly starched frocks. The spirits of 1912 reunion crowd have been tested and proved 99.9% damp-proof.

In spite of rain, in spite of limbs sore from the morning game, in spite of "tummies" distended from too much dinner, the indefatigable Ralph Ferry, fresh from Toronto, Canada, cajoled the gang into a set of runs, jumps, and other child-like sports on the beach. Lack of space prohibits detailed narrative of all the events. If you weren't there, it was your own fault. We will merely whet your curiosity and excite your envy by mentioning the fact that Dal-

1912 Continued

rymple is still there with speed on the track, that Shepard still jumps as efficiently as the Australian kangaroo, and Miss Lovell in the ladies' event was so good that Shep didn't even dare to challenge her. We will only multiply your regret by reminding you of what you missed in the potato race, when the writer staggering in at the finish behind Ray Wilson, fell forward a total wreck, and accidentally landed his sea beach spud on the pile at the same time as Ray, thus tying for first. And just to show you that God still loves the Irish, the judges instead of awarding this dumbbell play with the red raspberries, gave us the prize.

Now we come to the Banquet. What we think of banquets of the conventional kind would raise blisters on asbestos paper, but this banquet wasn't conventional — in fact, it wasn't a banquet at all, just another welcome feed, without any program of speeches or other irritations.

Following the quaint custom of the first tourists who arrived in Plymouth about 300 years ago, sea food was the predominating motif at all meals. It is said that fish is good brain food, and maybe they figured that all Tech men have hungry brains. A more logical explanation was suspected, however, when the writer noted thousands of silver lake cast-up on the beach by a recent storm. Possibly, the sly innkeeper gave the sea gulls and sand fleas a little competition for his share of this example of Nature's bounty.

As we were saying — the banquet wasn't as formidable as it sounded. Somers, the champion fish and food destroyer from Boston, won handily in the main event, as expected. Our old friend Murray, of Course X fame, wanted to tell the world and the waitress of the fundamental fallacy of trying to secure synthetic gin from old automobile tires or something. Louis Walsh, ex-gob, regaled a selected audience with salty stoires and other kinds of stories gleaned from his lurid experiences on the briny deep and in foreign parts.

Then Clarence Morrow got up, and after a few well-chosen remarks, as they always say, began the award of prizes. Here they are! Look at them yourself, and judge if they be not the flower of the Class.

Events of Winners:

At the Costume Party, Friday evening, Mr. and Mrs. Foley received first prize for the best costume, and Mr. and Mrs. Somers, second. Saturday morning, the first prize for first in the water, for ladies, went to Mrs. Sloan, and for men, to Carl Somers.

At the Track Meet on the beach in the afternoon:

Fifty-Yard Dash — Men: First — F. J. Shepard, Jr.; Second — P. W. Dalrymple.

Thirty-Yard Dash — Ladies: Mrs. Gere, First; Miss Lovell, Second.

Thirty-Yard Dash — Mixed Doubles: First — Mrs. Gere, F. J. Shepard, Jr.; Second — Mr. and Mrs. Somers.

Standing Broad Jump — Men: First — F. J. Shepard, Jr.; Second — Whittlesey.

Standing Broad Jump — Ladies: First — Miss Lovell; Second — Mrs. Morrow.

Potato Race — Men: Tie — McGrath and Wilson.

Potato Race — Ladies: First — Miss Lovell; Second — Mrs. Somers.

It is at this point we hesitate to go on. Our usually ready typewriter is missing on No. 4 cylinder, its ignition grows positively disbolic. We dread to drag scandal into this erstwhile fair and pellucid narrative — yet truth and candor demand that it be complete, sparing none. As Morrow, with his inimitable "savoir faire" (meaning "smooth stuff") concluded, awarding the final prize — which as we recall it was a Woolworth brand .38 calibre pop-gun, Schell crashed in with his protest against a decision. In any other League he would have been benched like Ty Cobb was, for forty days, but Morrow showed he is not a peevish Ump, like Dineen or Evans, but possesses patience, mildness, long-suffering and magnanimity. He certainly deserves to inherit a fair share of the earth at that.

While Schell, in stentorian tones, ringing rheton, and aggravated accents, delivered his Patrick Henry plea for his alleged rights — Morrow heard him patiently through. It seems that Schell entered the potato race — so he says — and finished so far ahead that he was sitting on the side lines with his overcoat on when the others started. The judges, with peculiar blindness, entirely overlooked his early finish, ignored his claims and bestowed the

laurel wreath of victory on another less-deserving dome. Concluding with a plea replete with pathos, while strong women wept and weak men worried, Schell pointed dramatically at his silent spouse and declaimed thusly — "Here at my side sits the faithful wife of my bosom, her pride torn to shreds, her faith in her husband's prowess lost, her belief in justice shattered — she taunts me with these bitter words — 'you didn't win a thing' — Gentlemen, I ask you, I ask any lover of justice, if this monstrous thing should be." There was more, but the official stenographer was so overcome that he lost consciousness at this point.

Was Morrow overcome? Did he fall down on this problem? Would he permit this unhappy occurrence to ruin an otherwise fair occasion? He would not! With masterly control of his emotions, with the calm of a clear conscience, he gently and in a fatherly manner, motioned the plaintiff to the bar of justice, and then and there, presented him with the sole remaining prize, intended for the ladies' potato race — which was not run — and sent him away contented.

Well, there were many more things befell that might be narrated, but the hour grows late, and memory fails. Bridge games, parlor tricks, walks, visits

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1912 Continued

to historic shrines in Plymouth, and stories all helped to pass the all too short time, all too quickly. The stories that were told would fill a book. In 1912, we have liars, we have damn liars, we even have statisticians. It was a grand good time, the best we've had since the year of the big wind and the little apples.

Before we park our non-refillable fountain pen for the night, we intend to pass out a couple of bouquets—one to Frederick J. Shepard, Jr., our Class secretary, the other to Clarence Morrow, our Class treasurer. Not only for the wonderful piece of work they did in planning and pulling off this decennial reunion, but for hard, continuous and untiring work for the Class of 1912, these two early birds deserve something more than the usual worm. Only because of their interest and efforts, is the Class of 1912, a reality and a going concern today. Three years or so ago, it had lapsed into a state of partial, if not complete, eclipse. They decided it must be revived—and it has been revived.

The Class of 1912 is back on the map. Let's keep it there! All aboard for the next reunion!

F. H. Busby, VI, who is now with the Charles H. Tenny Company, 200 Devonshire Street, was in the hospital during the month of June, and part of July with a bad appendix. From all accounts, this same appendix will not bother him again during his natural life.

Hamilton Merrill, XII, is now manager of the Tower Manufacturing Co., Newark, N. J., dyeing manufacturers.

Jesse Hakes, I, is now in Philadelphia, District Manager of the Baltimore Tube Company, address 904 Spruce Street, Philadelphia.

D. E. Bent, VI, breaks into print as follows:

"D. E. Bent, who was recently elected president of the New Mexico Electrical Association, comes from a pioneer family in the electrical industry. His father, A. E. Bent, developed a number of small lighting plants in the Missouri Valley and the Rocky Mountain Region in the late nineties. It was through these companies, the son, D. E. Bent, received his early training and at the present time he is manager of the Tucumcari Light and Power Company, of which his father is the president. It was only a few years after D. E. Bent was born in Lamar, Colo., November 23, 1890, that his father built the first lighting plant in that city, using two old Edison bipolars. He received his high school education in Denver, and was graduated from the Massachusetts Institute of Technology in 1912. He then entered the General Electric Company course at Schenectady and then transferred to the sales department of the Electric Storage Battery Company; in October, 1913, he started work on his father's properties and these duties included firing boilers, wiring houses, collecting bills, and the many kindred jobs required at small central stations. For the finishing touches in this work, he attended the Central Station Institute of the Chicago Commonwealth Edison Company. Successively taking charge of the Eldorado Springs and La Plata, Mo., plants, he disposed of them at a profit, and in October, 1917, assumed the management of the Tucumcari (New Mexico) Light and Power Company. He is also general manager of the other A. E. Bent interests, and found time to serve as a representative of his district in the 1921 session of the State Legislature."

1914

H. B. RICHMOND, Secretary, 62 Tufts Street, Arlington, Mass.

G. K. PERLEY, Assistant Secretary, 45 Hillside Terrace, Belmont, Mass.

During the past summer, the Class secretaries were notified that the "Review" was to be published monthly for eight months of the year and that Class Notes were to appear in every other issue. Even-year classes were to have one issue and odd-year classes the next. Such a scheme may look all right on one of Walter Humphreys' inverse square law tabular views, but it did not appear very practical to your secretary and those of some of the other classes. Few would ever remember in which issues the notes of their particular class were to appear. The newly-appointed editors of the "Review," not having the work to do themselves, suggested that any class desiring to publish notes every month might do so! Fourteen have accepted the challenge and notes will appear in each issue. Such a plan will mean that the members of the Class will have to carry part of this burden by writing an occasional letter to the secretary. We will give the new plan a fair tryout, at least.

It is rather discouraging to look over the list of Technology Alumni and see the long list of men, prominent during their student days, but now quite lost. We often think of the inactive Alumni as those who took special courses or who were with us only a short while. This is far from the case. The new President of the Alumni Association was so impressed with the possibilities of this list that a campaign was carried on this summer to bring some of these men back to the fold. Your secretary prepared a letter which was sent out with a reprint of the July notes to every Fourteen non-subscriber of the "Review." With the information that is to be printed about our coming Ten-Year Reunion in the "Reviews" of this year, a subscription to that magazine is of unusual value. Ask every Fourteen you meet to subscribe to the "Review" for the coming year and thereby keep in contact not only with his class, but with Technology as a whole.

During the first of September, a questionnaire was sent out to the Class to get advance ideas regarding our reunion. Suggestions of all sorts had been made, but the committee desired to get a poll of current opinion (*Literary Digest* stuff). The replies that have come in are interesting, to say the least. A summary of the forty-eight replies that have been received to date show no preference for the time of year. Twenty favored June and exactly the same number, September. Eight had no preference. Thirty voted to bring their wives—thirty-nine out of the forty-eight are married. The three-day period

at a week end was almost unanimously agreed upon. The place of the reunion was, also, a close vote; Boston, 11; Shore between Boston and New York, 12; Berkshires, 14. Many notes were added to these replies. For the most part, they expressed the opinion that the reunion should be held between Boston and New York so as to even things up a bit. Strange as it may seem, only about half of those voting for Boston were those living around Boston.

The Class book seems to be very doubtful. Twenty-seven only so far have voted to support it. Several expressed a doubt as to the value of such a book and would rather wait until more fame had been acquired. A twenty-five year book seems much more popular.

As usual, several bright side lights glimmered through the dullness of the reunion statistics. Dean Fales was right on hand to say we were all wrong on the location and that the three choices should have been Canada, Cuba, or Mexico. Pat Adams seconded the motion but added that under certain conditions anywhere would do. Stanyan, who enjoys Healy's cabaret girls, was also strong for Cuba. Sousa Brooks came through with some real logic, however. He said that other things being equal, that there would be less complications in making arrangements, and a more genuine good time would be had if the wives were not included, BUT if they were not included, each and everyone of them would expect that the reunion was to be a decidedly wet affair with the result that only about half of those who would like to attend would actually get there.

Boggs Morrisson was strong for holding the reunion at the shore so that anyone talking shop could be taken out and ducked. More power to the suggestion! The Class secretary will not even collect dues during the event. Boggs says to omit the cheer leaders—just get the old gang together.

Now to get down to our regular Class Notes. The society column is quite complete this time. From Frank S. Somerly, III, came the first item. It announced his marriage on June 28 to Miss Viola F. Brown of New York City. Art Stubbs, also took the great step in June. On June 26, he married Miss Margery Scott. While Don Crowell, X, has not actually joined the ranks of proud benedicts, he has applied for admission as of October 14. Courage, Don, Courage!

The real feature items of our society column are the long list of new arrivals. Some of these items are not very recent, as the proud fathers have been too busy to notify the secretary sooner. Just look over this list:

Joseph A. Joeth, September, 1921; Sidney L. Hall, December, 1920; Ralph D. Salisbury, Jr., April 19, 1922; and during the current summer: Helen Hamilton, Lewis Harold Danforth, David Chase Peaslee, William Thomas Reber and Robert Bours Richmond. Who said Fourteen was slow?

Ralph Salisbury said that because of the date of arrival of his son, he had to call him Junior to remind him of Junior Week that used to be. Leigh Halls' son is the third arrival in the family and Leigh reports that he will soon have to trade in his touring car for an auto bus.

Art Peaslee is now in New York City and is Chief Estimator for Dillon & Wiley.—Tom Duffield has just returned from Paris where he has been with the Rockefeller Foundation and is now at the Harvard Medical School.—Art Stubbs has broken away from the First National Bank of Boston and is with Estabrook & Company, Bankers, also of Boston.—E. C. Luce has joined the staff of J. D. Deland & Company of Boston.—Dean Fales still sticks to the Stute and has now risen to the towering heights of assistant professor.—Dinney Chatfield continues to follow the high life and at present is Aeronautical Engineer for the Wright Aeronautical Corporation.—L. A. Wilson continues with the New Jersey Zinc Company at Palmerton, Pa. and is now chief of testing department. Les Snow has settled down again with Bond & Goodwin of New York City in the capacity of credit manager.—Dick Favorite has returned to Boston from New London and is with the Worthington Pump & Machinery Corporation of East Cambridge.

Chet Corney has followed the example of several other Fourteeners and has broken away from Stone & Webster. We believe that Chet is the last on the list to leave that vast engineering organization. Since graduation, we have had several who at some time have been connected with the various Stone & Webster interests. The August 26 issue of the *Electrical World* contained the following write-up about Corney:

"Chester A. Corney, electrical engineer with Stone & Webster, Boston, has resigned to enter the electrical engineering department of the Edison Electric Illuminating Company of Boston. Mr. Corney was born at Boston in 1892 and after being graduated in electrical engineering at the Massachusetts Institute of Technology in 1914 spent a year as an assistant in the dynamo-electric laboratories of the institution. He then entered the employ of Stone & Webster and after a period of construction work in connection with power-supply problems on the Boston Elevated Railway was transferred to the Boston office of Stone & Webster for drafting and design service. In 1916, he entered the engineering department of the firm, and he has since been occupied with a variety of work, including electrical problems for the United Electric Light Company of Springfield, Mass., the Philadelphia Electric Company's Delaware station, the American Sugar Refining Company, Baltimore, and the Queens Borough (N. Y.) Gas & Electric Light Company. Mr. Corney is a member of the A. I. E. E. and the N. E. L. A."

Walter J. Hauser, IV, is off on another hunt for the crown of the early Kings of Egypt. Hauser is with the Metropolitan Art Museum of New York City and spends much of his time digging up the ruins of Ancient Egyptian cities. Giffels, II, has moved on again, as the general engineering department of the Robert Gair Company, with which he is associated, has been moved to Uncasville, Connecticut, near New London. O. C. Clisham has left the Semet Solvay Process Company of Syracuse, N. Y., and is now Gas Engineer with the United Gas Improvement Company of Philadelphia. Buck Dorrance reports that Ross Dickson has left for Paris in connection with some develop-

1914 Continued

ment work for the Standard Oil Company of New Jersey. We wonder if oil will be the only liquid Dick will be investigating while in Paris.

Frank Somerly, who spends his winters as supervisor for the Columbia Grammar School of New York City, has been enjoying life at his home town, Newburyport, Mass., during his short two months' vacation. Frank started the summer right, at least, by getting married on June 28.

1915

FRANCIS P. SCULLY, *Secretary*, 118 First Street, Cambridge, Mass.

HOWARD C. THOMAS, *Assistant Secretary*, 100 Floral Street,
Newton Highlands, Mass.

The custom of having Class luncheons is to be renewed. On the first and third Thursdays of each month there will be a gathering at the Boston Tavern, from twelve until two, it being necessary to extend it over two hours to accommodate the requirements of those who cannot be there at twelve. It is hoped that these luncheons will be well attended.

There are plans for an active year in the Class and the gathering at these luncheons will serve as a sort of advisory committee to your officers.

We have already set the date for a Class dinner. This will be held Saturday evening, November 18, at the Boston Tavern, at 6.30 p.m. As there was no general Class dinner last year, we are going to make an added effort to have the attendance as large as possible. The "Review" will be in your hands before this date and you will also receive notices direct from the secretary, provided you are within reasonable distance of Boston.

The "Review" this year is to have eight issues. It was the original plan to ask each secretary to prepare notes for only four issues and the first 1915 notes were expected in the next issue. However, it is our belief that there will be enough coöperation from the members of the Class to allow the insertion of Class notes every issue. The result depends entirely upon you. As you are interested in your old friends, you know they are interested in you; a letter from you to the secretary would make other members think of their old pals and it is, in reality, only a question of getting letters to make the Class notes interesting. There is a tendency for the notes to be confined to a relatively few men, but it is the secretary's hope to have at least two letters from every man in the Class during the year, a simple matter, apparently, yet one which for some reason seems extremely difficult to accomplish. Let every 1915 man who reads these notes think that this is directed personally at him.

Bob Haylett, X, is one of those who has been out of touch. The following letter is therefore extremely welcome:

"In tardy acknowledgment of your note of March 3 requesting information for Class notes for the "Review," I have enjoyed reading about the doings of the rest of the bunch, but I have been lax in the matter of passing on information about myself and some of the others.

"I interrupted some graduate work at the Institute in January, 1916, and came out here to take a position as a research chemist with the Union Oil Company of California, at its largest refinery located at Oleum, eighteen miles out from Oakland on San Francisco Bay. I spent about four and a half years at that point, engaged almost entirely in laboratory work, occupying various positions, including that of chief chemist. In August, 1920, I was transferred to the Head Office at Los Angeles in the same capacity and have been located here ever since, now with the job of assistant manager of the manufacturing department.

"I don't run across very many Tech men, although I have seen J. T. Holmes, '14, and I used to see Stringfield before he was transferred to Akron. L. G. Metcalf, '12, II, is the superintendent of our Oleum refinery and a prince of a chap; John Galen Howard, '86, IV, has been in charge of the design and construction of a new research laboratory for us at our Los Angeles refinery. C. C. Moore, '20, X, is with the company in experimental work.

"If you or any of the boys come out this way, I hope you will look me up. With best regards to all."

From other sources we understand that Bob is stepping right along.

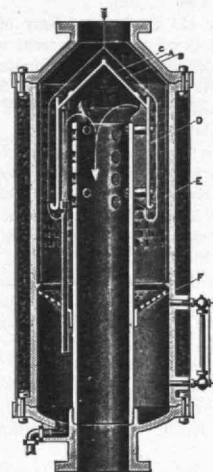
In the last issue of the "Review," we made an error about Jim Tobey. Jim corrects it with the following:

"During a lull in the day's turmoil, I have been enjoying the July Tech "Review." Before consigning it to the bookcase, I will dash off an epistle to you to correct the celebrity which you tried to force on me as a fraternity brother of the w. k. Warren G. Harding. About the same time that the President and General Pershing were being elected to honorary membership in one of the existing law fraternities, a number of us formed another legal fraternity, of which I served as the first Chancellor. Incidentally, I shared my LL.B. last June and am now ready to appear in court on behalf of any member of the Class who gets into domestic difficulties or is put in jail for any reason whatever. And speaking of domestic affairs, I might mention offhand, as it were, that Richard Lincoln Tobey was born on July 31st. This makes two, the oldest, also a boy, now about three years of age. They are both headed for Tech, but if I have anything to do with it, one of them will study law, like his papa. Now, that you have forsaken Buffalo and come home again to Cambridge, you can sympathize with me when I say that I should like nothing better than to get back to Boston, enter the practice of law, indulge in public affairs, and then in the due course of time come back to the Capital as (whisper it with awe) the Gentleman from Massachusetts. Can you fix it up for me?"

I think it might be a good idea to tell a few lies about some more classmates. It might arouse their fighting spirit to the extent of expressing themselves on paper and presenting the true facts.

Jim Franks, II, is still with the White Company at Cleveland. His letter was mostly concerned with his financial standing with the Alumni

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1915 Continued

Association and contained no personal history. Jim, however, presented the following alibi.

"My contact with our Class and the general Alumni Association has been an off and on proposition since our Class graduated and particularly since 1919. This condition, as far as our Class is concerned, is my fault, however; it is not the result of premeditated indifference but has been due to a great deal of traveling on my part, which encourages procrastination in personal correspondence."

That sounds as though Jim was a salesman. Later on he added:

"Please, also, check up my standing in reference to class matters and let me know whether I owe any dues. I am actually going to keep in closer contact with you now and want to become more closely identified with my old friends of 1915."

"With very kindest regards to you and also to my other friends in Boston."

We will take your word for it, Jim.

Brute Crowell, IV, our old general manager of "Technique," has taken a new assignment. The following announcement was received:

Mr. and Mrs. James William Hillhouse announce the marriage of their daughter, Eleanor, to Mr. Harold Ryder Crowell, on Saturday, August 19, 1922. Nothing has been heard regarding where their future residence will be.

We all extend our congratulations.

Allen Abrams, V, announces the arrival of Mary Catherine Abrams.

Al Walters, II, familiarly known as "Red," was in Boston on September 15 and spent a night with the secretary. Al is looking fine and I think must qualify as one of the best looking bachelors in the Class. He is very busy as the big works of the Walco Manufacturing Company in Baltimore and is meeting with success on the development of Ford Specialties.

H. W. Brown, IV, who has been with the Housing Corporation, left last week in his flivver for Hampden Institute, Virginia, where he will teach for the current school year. He extends a cordial invitation to any 1915 men in that part of the world to look him up.

Ted Friebus, I, is now in Easton, Pa., with the Ingersoll-Rand Company. Frank Foster, I, came to the office the other day representing the Barrett Company and gave the above information. He also added that Dick Heffer, I, is building roads in New Jersey. Not very definite, Dick, so you had better affirm or deny it.

The following clipping from *Paper Mill* is very interesting:

"Charles R. Outterson, a graduate of the Massachusetts Institute of Technology, cousin of the late James A. Outterson, former president of the Carthage Sulphite Pulp and Paper Company, has resigned the position which he has held for the past seven years as chemical engineer for that corporation, his resignation to take effect June 1.

"Mr. Outterson will organize a chemical company, to be known as the Adirondack Mineral Products Company, with a capital of \$50,000. The company will devote itself to the manufacture of chemical specialties for factory supply. It will be located in Carthage.

"He is a member of the Society of Mechanical Engineers and of the Institute of Chemical Engineers. He was in the service during the war and devoted about a year in the chemical department, manufacturing poisonous gases."

Just before closing this letter, George Rooney rushed in to tell me not to forget about his seeing Lucius Bigelow. It seems that while George was on his vacation in Gorham, Maine, he was travelling along a lonely country road behind one of those fast nags they have in that part of the country, when a rig hove in sight bearing a fellow wearing a very familiar grin. From here on we'll let George tell it in his own words:

"He didn't recognize me (disguised with a clean face) but nevertheless he continued to beam on us. I mention 'us' with more or less hesitancy since the well-known smile seemed to be concentrated on the female of my family. I shouted out 'Hello, Lucius,' as he passed by, but he couldn't quite figure out who I was and so Lucius Bigelow, one of our best known chemists, with the well-known smile and looking back questionably, continued on.

"That night, however, after doing a little detective work and finding out who the exuberant swain was who greeted him that morning, he paid us a visit. We spent the evening reminiscing.

"Lucius told me that Brown University is apparently well satisfied with Tech methods of instruction and, as a result, he will continue to draw the weekly stipend from Brown University the coming year.

"He had been in touch with only one of the '15 gang — Jack Dalton of Milford fame — who still continues to guide the chemical destinies of the Providence Gas Company.

Lucius sure has become kittenish and that to me always suggests one thing, — a woman in the case. I hope John is not leading him astray. He was, however, very mysterious when questioned on this point, but admits to the "not at home" Sunday and Wednesday nights. Far be it from me to make myself a libel suit defendant, but I have a hunch that Lucius and John are treading the Gay White Way of Providence."

1916

WM. W. DRUMMEY, Secretary, 533 Washington Street, Dorchester, Mass.

There are many signs of life from the new Editors of the "Review," and in co-operating with their suggestion, your acting secretary is going to have Class Notes in every number. Heaven alone knows what they will be. Never did there exist more modest, shrinking, retiring bunch of violets than the members of the Class of '16. At the next meeting of the class an assessment will be made to cover the charges of a clipping bureau, — said clippings to

consist solely of obituaries. Send a post card, 'phone, do something, to let us know if you are alive; if you're a spirit, — rap a few times.

William T. Knieszner announces his association in the practise of Patent and Trade Mark Law with Robert S. Blair at 50 East 42nd Street, New York City. Knieszner is a member of the New York Bar. Don Webster dug this bit up, but his own recent doings are a secret.

Sandy Claussen was married on September 23 and Saul Makepeace was the best man. Details in full are promised to be forthcoming at a later date, — from Makepeace.

Frederick S. Kenney is in his father's firm. They manufacture school furniture. He says the furniture in old "Lowell" did not come from his company.

Mr. and Mrs. Cyrus W. Lovell announce the marriage of Mr. Lovell's daughter, Mildred Grace, to Mr. Harold French Dodge, on Saturday the 15th of July, 1922, in New York City. Mr. and Mrs. Dodge will be at home after the first of August, at 1430 University Avenue, New York City.

Your secretary takes very great pleasure in announcing the engagement of Miss Esther G. Keliher of Boston, and Wm. W. Drummey. Miss Keliher is a graduate of Simmons '19 and is a daughter of the late Hon. T. J. Keliher of Boston.

Invitations have been sent out to every person who was at some time a member of '16, to join the Alumni Association of the Institute. This is being done by every class and will, it is hoped, do much to swell the power of the Association. Some see in it, at a future date, another drive for endowment; have assured them they are very, very wrong.

The following letter was received from Ed Weissbach, II, Lockland, Cincinnati, Ohio, on the paper of the Richardson Company, makers of paper boxes, wallboard, etc.:

"Having just read the April 'Review,' the spirit moves me to make an additional contribution — namely, a letter to me from 'Flip' Flemming which will indicate where some of the fellows are.

"Business is picking up with us in spite of the strikes; our Chicago plant is now working full time, and we are constructing a mill in New Orleans for felt roofing products.

"I see Hopkins II — '16 occasionally — he is now celebrating the arrival of Allen Hopkins, born in April. Rood is the only other 'steener in this vicinity so far as I know. If there are any others, they rarely show up at the Tuesday lunches of the Technology Club."

Then the letter to Weissbach from Flipp Flemming

"Better late than never. I have no excuse to offer. I just found it difficult to keep up my private correspondence. I am kept busy at the factory and I have more than I can do at home taking care of the yard, garden, etc.

"Since the first of the year, I have been located at Plant No. 1 in the materials department. I am not directly connected with production. I have charge of all the storerooms and receiving rooms. I am training for Mr. Gillin's work as head of the Production Service Department. He is running for a political office and, if elected, I will be promoted. The next few months will tell the tale. The Production Service Department includes the Materials Division, the production control, the garage, the shipping rooms, inside transportation, the finished work and the janitors and yard gangs. It touches every nook and corner of the plant. It will be wonderful experience if I get it. I won't know until the November election.

"Hal Gray '16 is in Akron, located with the interplant relations department. Johnny Ingle '16 is still in the Far East, but is expected back sometime this summer.

"Ed, I haven't any news of the Tech boys. They get scattered everywhere. I hope when this letter reaches you business will be better and you will have a better outlook. The family all send their best wishes along with mine."

William J. Sloan is a resident engineer for the R. I. Board of Roads in the Bridge Department. Bill has gained some twenty pounds in weight, but otherwise is very much the same old "Bill" who used to help make the Architectural Department, in old Pierce, the jolly place it was.

John Hogan, likewise a man of art (IV), is in hiding — so rumor has it — somewhere in Providence; he has grown a dense soup-strainer.

At last, we have an h-t-G letter from a member of '16 to the secretary. Ed Clarkson says, —

"Claussen wrote me some time ago that you were about to take over the duties of Acting Secretary. I have also noticed by the 'Review' that you are on the job and producing results. I have been intending to get in touch with you to see if there were anything that I might do to assist you in any way. It is rather out of the beaten track out here, and I seldom see any 1916-ers. However, I hear from a number of them, and will forward whatever news that I am able to get. I see that the 'Review' is now a monthly publication.

As for myself, I am working on a fairly good sized irrigation project near Del Mar. The work is being carried on under the direction of J. B. Lippincott of Los Angeles. The work itself is fine; the climate better, and I am enjoying life very much."

Anonymous contributions are not usually received by good editors, but we will print the following:

"In reading over the class notes in the July 'Review' I noted that Walter Blackwood was reported as still alive, but would not tell 'how' or 'why.' I had the pleasure of spending an evening with him at his room in the Brooklyn 'Y' last week and listening to a concert over the radio he has installed there. He is with the Western Electric Co., doing time study work in connection with telephone installation. A member of 1919."

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Mr. and Mrs. C. W. Loomis announce the birth on August 23 of their son, Robert Nye Loomis.

The poor, old acting secretary gets a little balm from a co-ed:—"There is a certain amount of pleasure attached to the receipt of communications such as accompanied this (the invitation to join the Alumni Association); but by the time one has paid annual dues to some six or seven teachers' 'associations' and an other half dozen clubs and 'leagues' it seems necessary to call those sufficient. So I don't believe it will be possible to add this to an already too-long list of dues." (Signed) Hazel E. Roberts.

From Taunton comes the announcement of the engagement of Miss Vivian Estelle Hughes, to Mr. John Douglas Robertson. Miss Hughes attended the Capen School in Northampton; Robertson served in France as a Captain in the A. E. F.

R. E. Wilson has been appointed a member of a committee to serve with Dr. Van H. Manning of the American Petroleum Institution to do research work on securing an adequate supply of fuel for motor vehicles.

Harold F. Dodge received last June the degree of M. A. from Columbia in Mathematics and Physics. He is employed as an acoustic expert and telephone engineer in NYC by the Western Electric Company.

Maynard C. Guss is now home on a six months' vacation, after six months work in China for the Standard Oil Co. Guss, his wife and his two children expect to return to China on October 14, 1922.

Next month the '16 contribution to the "Review" will consist of 17,642 exclamation marks and a beautiful crayon life-size portrait in 13 colors, of the acting secretary as he is today, posed while opening his '16 class mail. The acting secretary is a poor, starving Architect (N. B. cheap ad.), but he can't design all the news. Please, please, PLEASE let us know what you are doing.

1917

RAYMOND S. STEVENS, Secretary, 56 Randolph Street, Arlington, Mass.

It is going to be difficult to keep him from monopolizing space in these notes. If he would be satisfied with one job—say Assistant Dean or even Assistant to the Director of the Division of Industrial Cooperation and Research of the M. I. T. But, as Editor of the "Review," he makes a very fitting secretary emeritus of 1917 and the over-anxious voters may be forgiven the extra crosses on their ballots.

John M. De Bell continues as president, A. P. Dunham becomes treasurer and R. S. Stevens, secretary. Brick Dunham warns us that he means business, and that he intends to inaugurate a sound though modest financial program.

In our present paternal mood we feel that the event fully warranted Cronin's special announcement. He writes: "Am in Cass Gilbert's office, where I've been since last winter. Other M. I. T. men there include J. T. Mohn and Z. N. Mattoossian of a'out '09, and S. E. T. Pizer, '15. I see Don Tarpley occasionally. A number of Seventeeners are usually in evidence at the Tech Club."

Mr. and Mrs. F. P. O'Hara announce the birth of their son Francis, born the eighteenth day of August, 1922.

Bill Gray, III, notifies the world in general that he now has a daughter, born in August. He is naturally extremely proud, but per-

haps somewhat more relieved, for he now has an heir to whom he can bequeath the hat that he has worn for some nineteen years. But it creates an atmosphere which harmonizes with Barnsdall, Oklahoma, where he has charge of a special cracking process for the Barnsdall Refining Co. He says, "speaking for myself, am as pure and virgin-like as ever and my conscience is still lily white. Liquor

never touches my lips but tell—that today, for the first time since he left this beautiful pastoral spot, I had the neck of 'old Monticello' half-way down my throat. Ah!

"Don't send me any dope, I am no hophead but I will be glad to receive any news fit to be sent through the mail. Save the rest to tell me when I come East."

All of which is merely by way of introduction of our own announcement of the birth of a son, David, on September 13. As his first intelligent action was to thumb his nose at the nurse, we assume he is headed toward Tech.

Late this summer, Ted Bernard was scheduled for a Tennis match in a Longwood tournament, representing Watertown against Waltham, and was surprised to find that his opponent was none other than Nig Sewall, II, recently returned from East Angus, Quebec. He had been doing steam engineering for the Brompton Paper Company and expects to locate permanently in New England.

Nig's tales of big game hunting four miles from East Angus indicate the density of the population, but E. G. Polley, II, dropped in from Iroquois Falls, Ontario, and pointed out on the map how much farther from civilization one could get up there, and still be in the paper production game. It had been nearly two years since his last return to this section. He is in charge of the planning department on a modified Taylor plan and similar to the work on which he was engaged at the Eastern Manufacturing Co. He has a ten-months-old youngster.

Walter G. Whitman, X-A, transferred from the Boston section of Course X-A to the Research Laboratory at Technology. He has been active on fuel work in connection with the present acute fuel shortage in Massachusetts.

Dick Whitney, XI, blew through from Tulsa during the summer and left a note on his American Appraisal Co. card, as follows: "Certainly has been great to see old Bean Town once more. Best regards to all."

A letter from Phil Cristal, I, contained the following:

"Ted McQuaid, XIV, of our Class dropped in on me last month. He is working as a chemical engineer for the government on the Aberdeen Proving Grounds and was here on his vacation. "Mac" hasn't changed a bit since I saw him five years ago. He is looking for a job near Cleveland, which is his home."

From Frank Hastie, XI: "A cavalry man at last—commanding officer for one week, including a four-day hike until the permanent K. O. arrives. Drove down from Denver—chuck full of beautiful scenery and the—(sic) roads you ever saw. More later."

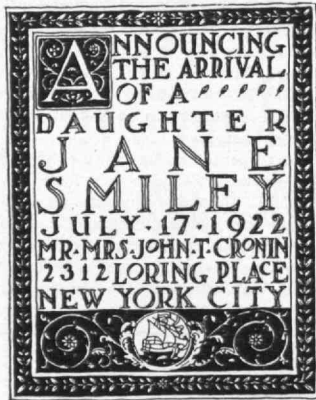
Bob Erb, XV, writes: "I'm to be located in Nashua, N. H., next month—the new McElwain Shoe Company is to locate there."

Just a card—but it had two names, Miss Ruth Cogswell Cain, Mr. Edward Vaughn Pollard.—We hear indirectly that Deac Young, whose engagement was announced in the last issue, has since been married. He has a college banner business in Chicago.

Now Ed Tuttle, VI, followed a weird series of events with a descent from bachelorhood. He was married in July to Miss Mildred Kirkegaard of Brooklyn, N. Y., and Mr. and Mrs. Tuttle are now living in Burlington, Mass., at the 1917 Country Club. Ed answered one of Thomas Edison's ads and took the famous questionnaire; knocked it for a goal in fact. He convinced Edison that he was unacquainted with spirituous liquors by stating that Rosini was an Italian wine merchant famous for his vermouth—and got 85 per cent on the examination. For a time, he reported daily to Edison and then took charge of record sales in New York City. He recently resigned in order to come to Boston where he has become active in connection with certain of Dr. Tuttle's business interests.

From the Springfield Union of May 10:

"A charming early summer wedding took place last evening at 7.30 o'clock in the home of Mr. and Mrs. Richard T. Wyckoff of Harvard Street when their daughter, Miss Helen Louise Wyckoff, became the bride of Richard Stewart Rowlett, II, of West Springfield, son of Mr. and Mrs. Thomas Stewart Rowlett of Brookline. The ceremony was performed before the fireplace in the living room, which was banked with palms and pink snapdragons and daffodils. Southern smilax was used to festoon the stairway and the rooms



1917 Continued

and the same combination of daffodils and snapdragons was used in large baskets through the rooms. Rev. Dr. Neil McPherson, pastor of the First Church, performed the ceremony, which was attended by the relatives and intimate friends.

"Mr. and Mrs. Rowlett left for a wedding trip, the bride wearing away a three-piece suit of blue poret twill and a hat of blue silk and straw. They will make their home in West Springfield after their return. The bride is a graduate of the Elms and MacDuffie's School. She was active during the war in the Red Cross and was a charter member of the Springfield Canteen Corps. She is also a member of the Junior League here. Mr. Rowlett is a graduate of the Massachusetts Institute of Technology in the class of 1916 and served during the war as a special member of the General Ordnance staff. He served overseas and was sent as a special delegate to Belgium to instruct the Belgian general staff in the use of United States machine guns. He is now assistant superintendent of the Strathmore Paper Company, Mittenage division."

Mr. and Mrs. Newell Young Queen announce the marriage of their daughter, Sammy Lovena Wamble, to Richard Thomas Lyons, III, on Thursday, the fifteen of June, 1922, Holdenville, Okla.

It appears that we did not do Pen Brooks' wedding justice in the last notes—the co-authors were perhaps disappointed that he felt his presence more essential there than at the reunion. But we read this in a Washington paper:

"A beautiful wedding took place Monday at the Highland when Miss Carol Wright, daughter of Mr. and Mrs. Frank Wright, became the bride of Edward Pennell Brooks of New York. The ceremony took place in the ballroom, Rev. Dr. Herbert S. Randolph officiating.

"The bride was given in marriage by her father and was attended by her sister, Miss Katherine Wright, as maid of honor, and the bridesmaids were Miss Marjorie Wright, another sister of the bride, and Miss Dorothy Brooks, a sister of the bridegroom. Reynold Brooks of Chicago attended his brother as best man and the ushers were Frank Wright, Jr., and Charles Beverley Wright, brothers of the bride, Richard Brooks, brother of the bridegroom, and Frederick Bernard of Boston. A reception followed the ceremony and later the bridal couple left for a wedding trip. They will reside at Montclan on their return."

"Miss Elzura H. Chandler, daughter of Mr. and Mrs. Edwin M. S. Chandler, was married this afternoon, at the home of her parents, 191 County St., to Arthur H. Paul, Jr., I, of Wakefield, N. H. Rev. Alfred V. Bliss of Cambridge, assisted by Rev. Dr. Edwin A. Burnham of Taunton, officiated.

"The bride is a 1920 graduate of Wellesley College and has been an assistant in the physics department of the Massachusetts Institute of Technology for two years. The groom is a graduate of the Massachusetts Institute of Technology, class of 1917. After their wedding trip, Mr. and Mrs. Paul will reside in Taunton."

Don Friend, who manufactures a special type of radio equipment in Boston, is not the only Seventeen to break into this field. From the *American Radio Journal*, June 15.

"Opening here today of a large radio retail agency marked the climax of what is termed by dealers 'unprecedented interest in radio.' The concern, the Radio Equipment Corporation, located at 612 East Grace Street, in the heart of the shopping center, and capitalized at \$5,000, promises to be a mecca for the thousands of radio fans in this city.

"The officers are Robert M. Jeffres, president and treasurer; Charles G. Miller, VI, vice-president and general manager, and Frederic R. Scott, secretary. Mr. Miller, who will be in charge of the firm, is a graduate electrical engineer from the Virginia Polytechnic Institute, the Massachusetts Institute of Technology, Harvard University, a first lieutenant in the overseas signal corps, and consulting engineer for the Western Electric Company for more than three years.

"Commenting on the lucrative and interesting field of radio merchandising, Mr. Miller said: 'I left a splendid position with the Western people just when I had received a salary increase, to take up the work. My experience has convinced me that I did far from making a mistake. I expect to attain more benefit and distinction in the selling end of radio than would be possible in other ways.

"The new store, claimed to be the first of its kind in a city of 180,000, 'the majority strongly infected with the radio virus,' to quote another dealer, claims to be 'a store with ideas.' They intend to 'pull off some novel stunts.'"

From the Hartford, Conn., *Courant*:

"George M. Lovejoy, Jr., has been appointed assistant special agent of the Great American Fire for Eastern Massachusetts and Rhode Island, with offices at Boston. He is a son of vice-president Lovejoy of the Phoenix of Hartford, and for the past two years has been inspector and examiner at the home office of the Great American for the New England department.

He is a graduate of the Massachusetts Institute of Technology and served during the World War as a lieutenant in the Coast Artillery Corps."

A business card sent over by Johnnie De Bell indicates that Irving B. Crosby is now in partnership with W. O. Crosby in his consulting geological service. Civil and hydraulic engineering projects, dams, reservoirs, aqueducts, foundation, tunnel roads, building stones, sand and gravel, petroleum and natural water supplies. Their business office is at 69 Massachusetts Avenue, Cambridge.

E. L. Clark, with the International General Electric Company at Shanghai, China, in a letter dated June 2, said: "The writer regrets that 5,000 miles cannot be covered in six days, so I cannot attend the reunion. My message to the class is that the influence of Technology is growing constantly in China, due to the spirit and high quality of work at the Institute, and that this has drawn many Chinese students of the best type to our Alma Mater. It has been a great privilege to meet these men here in China, holding the biggest engineering jobs in the country."

E. Levi sends greetings to De Bell from Leipzig and continues: "I am stopping here for a day on my way to Munich. Stayed in Berlin for a short while. Am touring Berlin, Paris and London with Dr. Leo I. Dana. Find things very interesting. Purchasing power of dollar very great at present rate of exchange."

On the envelope in which this card was sent us is the laconic note, "W. C. F. Gartner is married." We must go to press without confirming the rumor.

1918

JULIAN C. HOWE, *Assistant Secretary*, 551 Tremont Street, Boston, Mass.

Here it is time for another "Review"—sure proof that vacations are over and the year's work has begun.

About reunion—what would you think of having a week-end at some shore hotel like the Cliff House at North Scituate, and running off a program like this? We could have the whole place to ourselves, as the hotel doesn't officially open till July 1. We could start things Friday night and run till Sunday night, with something doing every minute. Then those who could get there as early as that (men "on the road" only work five days a week anyway) could make a real week-end and have a darn good time. An informal dinner Friday night and a dance right there in the hotel (you can see friend wife is looking over my shoulder) for those who dance, and cards, the movies or just plain "talking it over" for those who don't. Then Saturday, we can guarantee to find something that will amuse every man in the Class among the following.

We can use the Hatherly Golf course and tennis courts, the beach for baseball and other sports, fishermen can try their luck off the rocks, and, of course any and all can swim to their heart's content. Perhaps we could run off some water sports if it seemed desirable. Then Saturday night, we could have the big banquet when everyone would be there, big eats, entertainment, and a general good time. Sunday, the same diversions that were available Saturday would be in order, the reunion breaking up Sunday afternoon.

This is only a suggestion—let's hear yours—write in to your course secretary and before we know it, we'll be having the best reunion ever. Now for some news.

Course I, J. R. Longley, *Secretary*, Chamber of Commerce, Michigan City, Ind.

The new managers of the "Review" almost caused a case of heart failure in this vicinity when they issued the news that the "Review" henceforth would be a monthly and not a quarterly, but their "broadcast" to secretaries covering particulars was entirely reviving. Course I's secretary has had a very interesting summer but a very busy one in this sand dune country of northern Indiana.

During the first of the summer, I had the pleasure of "batching" it for a while with Woods McCausland, II, and Bob Thurston, '19, at the McCausland's home in Hyde Park, Chicago, while Woods' mother and sister were on a trip to Europe. That good luck had to end in July, when I came here to Michigan City as resident engineer on the construction of a new plant for the Sullivan Machinery Company, representing Mr. Arthur S. Coffin, engineer, of Chicago. In August, I made a hasty trip to New York to help brother Ned make the matrimonial jump. My new twin sister was Miss Hjordes Nelson of East Orange, N. J. They are now settled in a cozy little home in William St., East Orange, and Ned is back again on his daily beat to the Lock Joint Concrete Pipe Company nearby.

My stay in New York was too short to permit seeing many of the '18 men thereabouts. Was lucky to see Ed Little, VI, though only for a brief few minutes. Ed is still with the A. T. and T. Co. and enthusiastic about his work. He is living with his wife and little girl, Joan, in Bergenfields, N. J. Also saw Walter Robertson, I. He has recently transferred his business interests (other interests not included) to the Windy City, and is now with the Massey Concrete Products Company with offices in the Peoples Gas

SAMSON SPOT SASH CORD



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Builders of Stationary and Marine Boilers

Steamships, Towboats, Steam Yachts and Heavy Machinery

1918 Continued

Building. Saw him again a few days ago in Chicago and he says he likes the old town very much (naturally enough). Hope to see him again in a few days if the crush of business will only permit. Robbie also has been enjoying a stay with Woods McCausland and Bob Thurston in Hyde Park.

Another good Course I man took the courageous leap this month when our old bridge design buddy Henry Lacey got married. Lacey was last reported seen, though not heard from, but this news helps make up for lost time. Miss Edith Helen Johnson was married to Lieutenant Henry Richard Lacey on September 9, at Norwood, Mass. Best wishes to them. They will be living at 8 Rockey Hill Ave., Dorchester, Mass.

Craig Hazelet spent the summer with Halebird and Roche, Architects, in Chicago, but is now back again to start the fall term with the instructing staff of the University of Illinois at Champaign.

Course II, Saxton W. Fletcher, *Secretary*, 31 Union Square, New York City. We struck Sax on his vacation this trip and he certainly did come back strong. He writes as follows:

I received the following letter from Stu Caldwell in answer to my request for details of his wedding. I saw him in New York week before last at the Chem Show and he looks as though married life agreed with him.

"Your very pleasant letter arrived just in time to bid me 'bon voyage' on my wedding trip and so here I am writing you on my return and hoping that the delay will not cause you to feel that I have forgotten or neglected you. First of all, I'll get the wedding details off my chest.

"On June 10, Miss Hazel Allen Coss was married to Stuart Hill Caldwell in the First Baptist Church, Newton Centre. The bride is the daughter of Mrs. and Mrs. George M. Coss of 71 Oxford Road, Newton Centre, and is a graduate of the New England Conservatory of Music, the class of 1915. The groom, a graduate of 1918, M. I. T., is the son of Mr. and Mrs. Ernest L. Caldwell of Newton Centre. Rev. Charles N. Arbuckle officiated, etc.

"I am still with Parks-Cramer Co. and will undoubtedly see you at the next Chem show at the Grand Central Palace, if not before. Please give my best regards to any classmates you meet whom I know."

Bob Derrah came through with such a long letter that I will only quote part of it.

"I was indeed glad to receive your note, on returning to Salt Lake City yesterday, and hope that I am not too late in returning the information you asked for. I am vice-president and chief engineer of our little company of two, and our business is the sale and design of heating, ventilating, cooling, and refrigeration systems and the sale of a few other building specialties and materials. My partner, Williams, and myself are officers, board of directors and sole stockholders of this concern, and during the first two years of our life the returns were very slim. This year, however, business has picked up marvelously. We are gaining a little reputation and we believe the future promises well. I have just broken ground for a home, on which I am architect and contractor as well, and, of course, will have an extra busy three months from now on."

Bob is located in Salt Lake City and the name of their concern is Williams & Derrah, Inc. We wish him the best of success.

F. R. Dowsley writes the following:

"I was married three years ago on April 30 last, and have no children. I married a Baltimore girl and it looks as if I will spend the rest of my days in this city. Three years ago last February, I became a member of the firm of Amoss & Dowsley, electrical contractors and dealers and we are getting along nicely. We specialize in all kinds of electrical appliances, such as washing machines, vacuum cleaners, electrical ranges, radio apparatus, etc. We have a contracting department which manages to get its share of the work here. Aside from this information, I have very little else to offer."

Mr. and Mrs. Howard F. Reed announce the birth of their son, Robert Breckenridge, born the twelfth day of June, 1922.

To step outside of the course, I have a little news that may be interesting. Don Bradley, IV, has gone back to Edmonton, Alberta, to settle down. Hope he does not freeze this winter.—I ran into Donn Burton at the Chem Show and he looks prosperous. Phil Dinkins was very much in evidence at the Dorr Co. booth.

This is all I have to offer this month, but I do want to ask everyone to send in any news they can gather concerning themselves and others in the course. I won't promise to answer them all right away, but eventually they will hear from me.

From the *Boston Post*, June 25, quite an article appeared telling of the accomplishments of Henry Berliner and his father, in the development of an helicopter, an aeroplane capable of flying vertically from a stationary support. It reads in part as follows:

"A former Boston boy, in an aircraft invented by his father and himself, is going after that rich prize of \$250,000 offered by the British Air Ministry for a successful helicopter, and with characteristic Yankee enthusiasm he expects 'to bring home the bacon.'

"A helicopter, you know, is a machine capable of flying straight upward from a space no bigger than its own bulk—from the roof of one of Boston's high office buildings, for example—and the apparatus developed by Emile Berliner and his son, Henry, is said to experts who have observed it in test flights at College Park, Md., during the past two weeks, to be 'the best of its type yet invented.'

"Emile Berliner, pardon the hackneyed expression, needs no introduction in scientific circles, especially here in Boston. He stands out as one of the most noted inventors of the country, and his son, Henry A., who graduated from Massachusetts Institute of Technology in 1918, seems to have inherited his father's inventive genius."

Course III, Charles H. Watt, *Secretary*, Silver Dyke Mining Co., Neihart, Montana.

We got after Chink a little stronger this trip and evidently it was just what he wanted, for he came across in fine style and we have some news from the mines at last. He writes as follows:

"Suppose you have given me up as dead, again. In spite of the fact that this is a good place to die, I am still alive and kicking and only bemoaning the fact that I can't find targets in sufficient numbers for my kicks as at East Machias, for instance.

"Was mighty sorry to have slipped up on you last issue, old man, and have absolutely no excuse to offer—pure negligence on my part. Sent out a War Whoop last June to the miners, but guess, with the exception of Grossman, Turner and Sanger, they are all in my own class. Was glad to see that Pete came across in good shape and saved the day for the rock breakers and I hope we are all breaking them on the right side of the wall.—Beware, you home-brewers. Am enclosing two answers to my mail received from Bill. Turner and Al Grossman too late for the July number. Bill's title at the present date must be merely 'freight agent,' for, as far as I am able to ascertain, it doesn't travel any more. 'Al' begins his letter by saying he was busy and he can't be arrested for that. Stay with it 'Al,' old boy, and we'll both die young. Guess I shall have to send for Grossman to span some of these mountain peaks for me; why should a man waste his time on bridging ditches when mother nature has offered greater fields to conquer?

"Just a word about myself before I freeze to death. He who carries his bathing suit in one hand and snowshoes in the other, must stand the consequences, I suppose. Received my orders latter part of July to leave 'Sunny Tennessee' and proceed to our new property here to assume the duties of assistant general superintendent. My duties now, during the construction and development stage, has to do mostly with superintending the developing of a new mining system, which we are to try here, and which I was fortunate in being able to study while in Alaska last winter, under the man who just originated it a short time previous to our arrival there.

"Mrs. Watt and I drove through from Knoxville, Tenn., to Boston, before I came out here. We passed through some very interesting country and if you are acquainted with Southern roads, you will realize that we also passed through—I could hardly say over—some mighty interesting roads. It took us five days to cover the 1000 miles through Virginia—Old and West, Maryland, Pennsylvania, New York, Connecticut and, finally, dear old Massachusetts. Had only a day or two in Boston and a great deal to attend to, so could not look any of the fellows up. Hope to have more time there next time.

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The Murray Printing Company

Kendall Square, Cambridge

1918 Continued

"Remember me to any of the fellows you chance to come across."

William H. Turner writes:

"I certainly was agreeably surprised to get a communication from you last Saturday, but after this long silence, why the deuce don't you send me something with a little news in it, instead of a stereotyped form. Something about that Alaska trip, for instance. At least, that is my understanding that you had been to the polar bear country."

"I saw in the last 'Review' that you had been asked to get in touch with 1918, III, and was about to write you a letter, anyway, as I doubted whether you could secure my present address."

"Your letter in being forwarded to me was delayed, so that I could not reply in time for June 10, but trust you may be able to fill up space with the following in some subsequent issue."

"Was released from the navy in September, 1919, and returned to the Institute the following month to complete unfinished work to secure the sheepskin. Finished there the following February, and took a position with the Steam Corporation in Chicago, and was later sent on the road by them in establishing new agencies in various parts of the country. Later, left the home company and went with their Philadelphia agency, having charge of installation of their apparatus—oil burning machinery. Was married in September, 1920, and would like to suggest here for the benefit of any other eligible Tech man who does not happen as yet to have landed in that happy state, that Pittsburgh has by far the finest selection in the country to choose from. This, in spite of the fact of its dark reputation in other respects. Needless to state further, that I was married in Pittsburgh."

"On leaving the Philadelphia concern, I went with the engineering department of the City of Pittsburgh, but a better opportunity soon offered, namely, the one I have now, and have been engaged in freight traffic work for the Texas and Pacific Railway ever since. It is most interesting and congenial work, with plenty of opportunities for the big job ahead and I have every expectation of following it indefinitely. I have seen very few of the miners since leaving the Stute and have heard from about that same number, Pete Sanger, with whom I suppose you are already in touch, being the only exception. As my work takes me about quite a bit over the country, I meet quite a number of 1918 men in other cities, and am able to drop in occasionally at their local Tech Club luncheons. Our own organization in Pittsburgh having rather slid back on its activities since Foote, '17, its former secretary has left the city."

Course IV, R. B. Wills, *Secretary*, 653 Franklin Street, Melrose Highlands, Mass.

Don MacAskell writes as follows:

"Early in October, I was assigned to the 218th Engineers which left for Camp Travis, Texas, shortly after that to join the 18th Division. While we were there, the Armistice was signed. After that, I had about as hard a time getting out of the army as I had getting in. Our Colonel had an idea that we might be sent to Russia or some other ungodly place, and he kept us working with infantry drill, field fortifications, rifle range, riding school, hikes and anything else he could think of."

"Nothing very exciting happened during my army career except that I got yanked up before the General commanding our division and had the pleasure of being called down by a Major General for not saluting a superior officer I didn't see. Tough luck!"

"I left Texas in January and got my discharge from Camp Upton, N. Y., in February. I came out here in June, 1919. I met the fellow I am now working with in the army. We do all the engineering for this office and quite a bit on the side. Mr. Smith, the boss, does all the school building work in Kansas City and gets a lot of the same kind of work in towns scattered through Missouri and Kansas, besides quite a bit of office, masonic, church and commercial building work. Most of my work has been on reinforced concrete, although I have had some good sized structural steel jobs. The outside work has consisted mostly of making bending details for reinforcing steel and making redesigns for a lighter concrete aggregate which a local concern puts out."

He goes on to say that his principal recreation is golf and that he is not yet married, but is not bragging about it. Perhaps he is slipping.

Early in the summer, we received the announcement of Herb Hatch's marriage to Miss Ernie Kelley of Brockton. They are now living at 67 Jewett Street, Newton. All architects living in Newton are invited to drop in.

Sumner Wiley writes us a nice newsy letter and then says at the end of it "not for publication." We'll forgive him this time because he sent in a picture of a nice plump baby for the far-famed baby page, which we hope will come out some time.

Ken Reid handed in the following at the last moment, as seems to be his custom.

"Well, here I am back in Boston, and it certainly seems strange to me after my two years' wanderings around the earth. Can't quite make out whether it's Boston or I that has changed. Think it's probably I. Town seems pretty much the same with the exception of a few new buildings;—same subway crowds, same yellow newspapers, only more so, same brand of flappers on Tremont Street, same delightful process of selecting a new crowd of City Hall office holders now in progress. Couldn't help recognizing the place."

"Best part of coming back was to see the fellows once more. Have been running into them everywhere. Have seen Jake Ellis, Herb Hatch, Hank Van Zelm, Packy McFarland, Dick Wilkins, Earl Collins, Pete Woodland, Jerry Giuranovich, Jim Flaherty, Frank Burke, and the Lord knows how

many others. All of which has helped to make up for the hardships of tearing away from the attractions of Europe."

"Guess I'm back to stay, for awhile, anyway. Right in Boston, too. Have not yet succeeded in finding a suitable employer, but one of the essentials is that he be in this city. Will let you know where I land."

"Think it is high time for some carefully compiled statistics to appear, regarding the percentage of our Class which is married. Must be pretty high, by now. Also, would be interesting to know how many proud parents we can muster. From the looks of things, we bachelors are getting to be a scarce article. I'm in no immediate danger of changing, anyway."

Among those we haven't heard from, or of for a long long time, are the following, and we wish they would write, wire, wireless, drop in, or otherwise communicate with us before the next issue.

Ted Winslow, Henry Wright, Marvin Stetler, Edwin Neff, Don Parkinson, Grenny Hancock, Walt Frasier and Julius Buerkin.—Our address is: Turner Construction Company, 178 Tremont Street, Boston, Mass.

The following clippings answer Bill's query concerning Gunny Hancock, IV. While old news to some, it will be read with interest by most of us, I am sure. We are indebted to the morning *Globe* of June 15, for the following:

"Miss Frances Louise Adams, daughter of Mr. and Mrs. Thurber C. Adams of 20 Bartlett Ave., Arlington, was married this evening in the First Parish Unitarian Church to Grenville Laing Hancock, son of Mr. and Mrs. George Hancock of Fargo, N. D. The ceremony was performed by the Rev. Dr. Frederic Gill, minister of the church."

"A reception and dance followed the wedding in the Winchester Country Club."

"The bride is an accomplished vocalist and, until recently, was a member of the Arlington Street Unitarian Church. Mr. Hancock was a member of the Class of 1918, Massachusetts Institute of Technology, but he left college in 1917 to enter the air service of the United States Army. He is connected with a brokerage firm in Boston. Following an extended wedding trip through the West, Mr. and Mrs. Hancock will make their home at 3 Concord Hall, Cambridge."

We are indebted to *Talk*, Winnetka, Ill., for the following news concerning our classmate, Dinsmore Ely, who, through his splendid sacrifice, has brought glory to his Class in a measure surpassed by none:

"There was standing room only at the Winnetka Congregational Church, last Sunday morning, when the memorial tablet to Lieutenant Dinsmore Ely was unveiled."

"The tablet was designed by Prof. Chandler Stearns, professor of Architectural Design in the Massachusetts Institute of Technology, as a labor of love. The tablet was executed by Edward F. Caldwell and company of New York City."

"In the service of unveiling, Rev. James Austin Richards, the pastor, said: 'Today we unveil and receive on behalf of the church a memorial tablet, given by Dr. and Mrs. James O. Ely, in memory of their distinguished son.'"

Course V, Gretchen A. Palmer, *Secretary*, 51 Houston Avenue, Mattapan, Mass.

A very interesting thing has happened. Miss Palmer noticed that no one was reporting for Course V, and what did she do but up and ask for the job. Needless to say, she got it, and from the nature of her first report, intends to carry out her promises.

"I am sorry that I am so late with news but for one reason not much has come in, and a second, and more important reason, I have been away the past four weeks and a half and just arrived home late last night."

"My trunk hasn't arrived, so I cannot give addresses for the two fellows that I heard from while away, but I can give their general locations. I promise to do much better for the next issue and for the following ones, as by that time I will have been able to get in touch with many more. I must say, I was surprised when I arrived home and found so many cards registered for Course V, as, of course, the list that I had made up myself was much smaller. The following are the notes as far as I can give them:

"Saw John L. Parsons at the A. C. S. Convention at Pittsburgh. He is now located at the Hammernill Paper Co., Erie, Pa., research chemist "studying wood and the products derived therefrom." His residence address is 1036 East Lake Road, Erie, Pa.—Don McArdle is starting this year teaching in old Walker Building, so he is back on familiar ground. He is an instructor in the department of mathematics and science at B. U. College of Business Administration."

"Laurence Flett, otherwise known as "Mique," is back in Buffalo, N. Y., with the National Aniline and Chemical Co.—Bertram F. Jones, our old friend "Jonesy," is now located in New York as pharmacist at the Drug Store at the corner of 137th Street and Seventh Avenue—am not sure of this address, so do not take it as correct until you hear from me again.—Charlie Dow is to be the leading man at a wedding in Lynn on October 14. The leading lady in this act is Miss Dorothy Redfield of Lynn. Good luck to them both. As for the sub-secretary of Course V she is jobless at the present time, but things are looking a little brighter than they did two months ago."

Now for a few notes concerning boys of other Courses:

Wendell Kayser is now production manager of the Federated Engineers Corporation, located on Ogden Street, Jersey City, N. J. His home address is 150 North Munn Street, East Orange, N. J. You ought to make him produce a picture of his young hopeful, David Laurence, now 11 months old. Some boy he is!—Yesterday came the invitation to the wedding of Charlie Lavener to Miss Martha Elizabeth Vaughn of Garden City, Long Island. The wedding is to take place in Garden City on October 12th. Good luck, Charlie!

Course VI, John R. Poteat, *Secretary*, Lockwood, Greene & Co., 38 So. Dearborn Street, Chicago, Ill.

What's the matter with the electrical engineers? I got a telegram yesterday from Johnnie, which reads as follows:

"No answers from twenty letters sent out. No coöperation. Sorry."

Now, this shouldn't be, with all the live men there are in this course, there should be as much news here as from any of the others. Wake up and do your part, as one of the big courses, toward making 1918's section of the Class notes a good one! Certainly, no one will bother to write twenty letters many times and get no response. If you are as dead as that would indicate, I, for one, would not bother trying resuscitation. Probably, Johnnie will give you one more chance, in an effort to save the reputation of his course. If he does, you must come back strong in order to get into favor again. This is enough of a thankless job when we get results, without getting hit in the face like this.

When our classmates fail us, the news clipper usually comes to the rescue as he did in this case. We are indebted, again, to the *Globe* of June 27, for the following account of Harry Camp's wedding:

"Harry Upson Camp of Reading and Miss Adra Cornelia Powers, daughter of Mr. and Mrs. Alfred F. Powers, of 12 Henderson Avenue, were married tonight on the lawn of the bride's home, by Rev. Ray E. Butterfield of Bethany Congregational Church, assisted by Rev. Edward Camp of Watertown, cousin of the bridegroom.

"After their wedding trip, Mr. and Mrs. Camp will live at 28 Highland Street, Reading.

"Mr. Camp is a graduate of Williston and M. I. T., and Mrs. Camp is a graduate of Mt. Holyoke College."

Course VII, E. Olney Herman, *Secretary*, Tiffany Enameled Brick Co., Monmouth, Ill.

Herman exaggerates my supplications somewhat, but then — anything to get more news. He writes as follows:

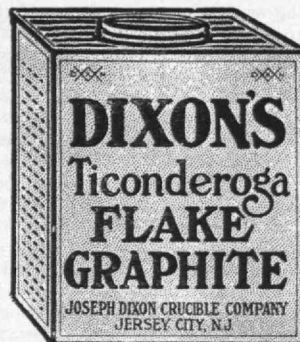
"After receiving your last two pitiful letters, I haven't the heart to withhold my reply any longer. After reading yours of the eighth, if I shut my eyes I can see you on bended knees, tears rolling down your cheeks, humbly asking for crumbs of information on the doings of certain persons on whom I am supposed to report. Alack and alas, crumbs, indeed, you will get! In the first place, I don't know what is the matter with the addresses you gave me for the several people I am supposed to look up. Perhaps it is Uncle Sam, my handwriting or something, anyway, about fifty per cent of the letters came back marked "addressee unknown at the address given." The balance, I fear, have been bitten by the same little bug of procrastination that has me in its clutches, or else with typical Course VIII modesty, they hesitate to put on paper their various accomplishments.

"I have scraped up something, though, that may be of interest. In chasing the elusive fellows whose address was given me as Rochester, N. Y., I find our old friend Don Warner has joined the ranks of the benedicts and taken unto himself a spouse, namely, Miss V. E. Milne, and is now to be found at 92 S. Plymouth Ave., Rochester, N. Y. As a source of ways and means, "D. D." functions in the capacity of Production Supervisor for the "Shur-on" Optical Company. Thus Don should be in good position to see a good future ahead of him. Incidentally, the thought occurred to me on remembering the difficulties Don had while wrestling with the intricacies of mathematics, that possibly his way might be easier now that he has a Milne in the family. I don't know, of course, how near the relationship is with that very learned man who managed to write so many complicated textbooks on mathematical subjects. However, just to have Milne in the family ought to help, don't you think?

"In the vicinity, we also found W. R. Holt making soap for the Harris Soap Company in Buffalo. We took a look through the plant where "Holt" holds down the title of Superintendent, and afterwards were urged to go up to the house and meet the wife. We wanted to, but couldn't. Those of us who remember Holt in the old days will have no difficulty in picturing the pep and punch he has put into the manufacture of the "best cleansing agent on the market today." Same old Holt.

"While in Chicago some weeks ago, we ran into Oliver Don Burton, sumptuously feasting on a fillet Mignon in the Blue Fountain Room of the LaSalle Hotel. Don recognized us in spite of the disguise which we now affect, saw right through the mustache and almost upset the dining room by greeting me with his customary warmth and genuineness. Oliver Don is connected with the Associated Companies . . . Insurance, Hartford, Conn., who, he informs me, take bad risks. It seems to me, however, they are way out of their field in taking Don, for I would say he is a mighty good risk. Married life seems to have agreed with him. He is hale and hearty and apparently quite successful. He did me the honor of spending the week-end with us down in the country and looked over my brickyard. We had a fine time getting acquainted all over again, and we passed a solemn resolution to keep in touch with each other in the future.

"While in Boston, we ran in to see some of the old friends in the Institute and found John T. Norton surrounded by a complicated apparatus, and thoroughly enjoying himself, as usual, in the heat Lab of Tech. He said his brother was still at Langley Field and tackling with good effect some difficult research problems that were troubling the Aviation department. I can not close this without making a matter of permanent record the serious disappointment I had while in Boston. I took five of the precious few minutes I had in dear old Bean Town to call upon your honored self. You were out, to lunch I suppose. However, better luck next time.



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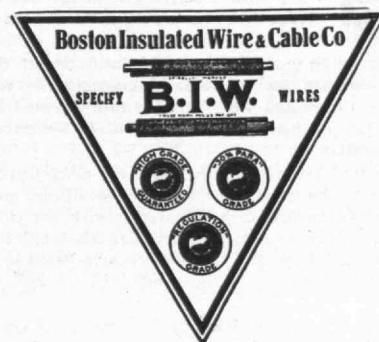
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BOSTON, MASSACHUSETTS

Canadian Factory, Hamilton, Ontario

1918 Continued

Course X, Wm. F. Ryan, *Secretary*, Course X-A, M. I. T., Boston, Mass.

Our letter to Bill was returned about the same time that we received the announcement of his wedding, so we did not press further in his direction, but let him start married life without a care, as far as we were concerned. I did, however, urge our worthy president to take his place, he being in a good position to meet the men, but as yet have heard nothing from him. This must go in to-night, but if something comes along I shall shoot it in, if it is not too late.

Bill's announcement reads as follows: Mrs. Agnes Haywood Collins announces the marriage of her daughter, Pauline La Verne, to William Patrick Ryan, on Saturday, September 16, 1922, Cleveland, Ohio.

We are indebted to the *Boston Post* of July 2, for the following:

"Selectman Maurice A. Duffy and Mrs. Duffy, of Milton, announce the engagement of their daughter, Madeleine Alice, to Mr. Harold C. Weber, of Milton. Miss Duffy is a graduate of Miss Wheelock's School and is at present teaching in the Milton School. Mr. Weber is the son of Mr. and Mrs. Christian Weber, of Milton. He was graduated from the Massachusetts Institute of Technology, and during the World War served as a lieutenant in the chemical warfare service."

Course XI, Nelson A. Bond, *Secretary*, 226 Cumberland Street, Brooklyn, N. Y.

Nel Bond, from his new headquarters with the Telephone Co. in New York City, writes as follows:

"Here's a letter from Dawson that gives a good line on the fellows. The other boys in the Course are hard to get in touch with and none of the fellows seem to know anything about them."

"Am terribly busy but must drop you a line. Have only one piece of news of importance, at present, but perhaps later I may be able to scare up some. Even international news doesn't get my attention, not even the Turkish situation or the gang fights, or scandal cases, etc., of this city. Fact is, I'm going to be married on Friday of this week, that is, barring accidents or sudden death, or something of that nature. Am going to be in the East a month and can be reached at my old home address, 314 Webster St., Needham Heights, Mass. Will return to Chicago via New York, and if it is convenient would be glad to see you if only for a few minutes."

"Things are going fine here but haven't had time to think about them, lately. Larry Starr is not far from here. Is helping the state to build bum roads. Get to see him once in a while over week-ends. Scottie (Warren J.) spent the week-end before last with me. He was on his way to Iowa to accept a position with Iowa State University in the extension division. Bushee is with the same company that hands me a pay check. He still *claims* to be very much unmarried."

The following letter brings news of the death of Nino Catlin, one perhaps not so well known as some, but to the whole Class this news will be a shock, indeed. The letter reads as follows:

"By the absence of any item concerning it in the last number of the Technology 'Review,' I judge that you do not yet know of the death of N. T. Catlin:

"Nino Teshar Catlin graduated from the Institute with the Class of '18 in the Naval Architecture Course. After his graduation up to the spring of 1919, he worked in the Boston Navy Yard; he then accepted a position with the Standard Oil Co. in China and until his death in November, 1921, made his home in Shanghai.

"During his stay in China, Catlin had to do much traveling; he made two or three trips to the interior of China and to Siberia, investigating the possibilities of inland navigation in connection with the Chinese oil-fields. Due to overwork and severe climatic conditions, his health broke down, he got well again, but had a relapse of dysentery, complicated by a severe cold. He did not recover from his second illness and died in Shanghai in November, 1921.

"I am quoting from a letter Nino Catlin wrote me in October, 1921: 'I have been in the hospital now for a month with a short interruption trying to get over a case of dysentery; it is the second time I have had it now and if I get it a third time I am afraid I'll have to cash in. I had a close call last week . . . I am beginning to count the days when I shall be bidding these inhospitable shores farewell and go home.'

"Before his death, Catlin was promoted to the position of Marine Superintendent of the Standard Oil Co. in China. He is survived by his mother, Mrs. M. T. Catlin, whose present address is: c/o Mrs. T. Blake, 43 Livingston Street, New Haven, Conn.

"I had the privilege of knowing Nino Catlin well; he was as fine a type of man as I ever expect to meet. He had a very powerful and pleasing personality and very unusual engineering and administrative abilities, which were greatly appreciated by his friends and business associates." *Vladimir Dixon.*

Course XV., Clarence E. Bassett, *Secretary*, 21 Grove Avenue, Westbury, R. I.

Clarence is still "Old Faithful," busy as he is, and we certainly do appreciate it. He writes of his work as follows:

"Perhaps you think selling fifty-seven varieties is a snap job, but I have been away from home over a week and for the last two nights my work was completed between 11.30 p. m. and midnight. Don't ever accept a salesman's alluring proposition if you want to spend your evenings with your family."

It is always hard to get some of the Course XV men to write of their achievements, but when a man steals time during his honeymoon to help

bolster up the Class Notes in the "Review," we simply take our hats off to him. Here's the prize letter from Harold C. Collins:

"If I didn't think a lot of the Class of 1918 and the Course XV bunch, you wouldn't get an answer from me this time, for I am now in the midst of my honeymoon. Yes, sir, my wife and I stepped off on September 16th, and are spending a couple of weeks here at Megansett. Mrs. Collins was formerly Elizabeth Milton Thomson, Wellesley, '22, of Brooklyn, N. Y., and one fine little girl. (We are sure of that and now we know why Harold always carried a book of commutation tickets to Wellesley.)

"I'm sorry that I don't know much about the other fellows, except I did attend Larry Marshall's wedding last June. I have seen Jerry Giuranovich on the street once or twice and I understand that he is in business with some other Tech man selling steel staircases.

"Do you remember Dave Paton who was in our Class, Senior year? He and Ed. Newton are in the same bondhouse, although I do not recall the name. Ed, too, was married last spring, I believe. Both are living around Boston.

"I see Leonard Levine once in a while and I understand he is located with the General Electric Company at Lynn.

"I have had the good luck to be called back as assistant to the President of my old engineering firm, the Harry M. Hope Engineering Company of Boston. The prospects look very bright for the present and also the future, so now I suppose it's work like the devil and advertise.

Peter M. Strang wrote several months ago (just too late for the April issue and the secretary mislaid his letter the week before the July issue went to press) that he is with the Cellulograph Engineering Corporation, 73 Tremont Street, Boston, Mass., manufacturing self-lubricating bearings for machinery. "Pete" is in the production and selling end of the business as is most becoming to all good Course XV men.

The last message from John Damon was regarding his marriage in April, 1922. John is also in the selling game and his address c/o The Exide Battery Service Station, 720 Beacon Street, Boston, Mass., tells the whole story.

Can some one tell what has become of the Howard twins, Alan and Paul? We understand that Alan has left the position which he held with Lever Brothers, Cambridge, Mass., early in 1922. Lost, stayed or stolen, two perfectly good twins!!!

For up-to-the-minute news, listen to this officially dated August 12, 1922. Mr. and Mrs. Edgar W. Huckins, 2024 Wallace Street, Philadelphia, Pa., announce the arrival of Robert Valentine Huckins. Congratulations! In the same mail comes word that Stephen A. Hoye has left New England and is now located with the Continental Motors Corporation, Muskegon, Mich. This up-to-date information brings joy to the heart of all good (?) editors.

From 69 Beechwood Avenue, Bogota, N. J., our old friend W. M. B. Lord writes that he is now sales engineer for Stanley and Patterson, dealers in electrical supplies with offices in New York City. Bill was married in 1919.

H. D. Manuelian tells us with well-deserved pride that he is doing Industrial Engineering work for the Charter Chocolate Company of Boston. We hope to hear from you again, soon, with more detailed descriptions of some of the problems you are solving in this interesting field.

Once more reference must be made to Lawrence P. Marshall who was safely married last June, according to Harold Collins' letter. Larry's new job is with the American Radio and Research Corporation with headquarters at Medford Hillside, Mass. Two other Course XV men are also engaged in work directly or indirectly connected with the development of radio apparatus. J. Tillou Sattels is assistant to the General Manager of the Electric Products Manufacturing Company, 60 Sprague Street, Providence, R. I., and Eli Berman, who took several courses in Business Management, is with the Radio Company of Boston, 161 Milk Street.

Mortimer D. Hathaway is now with The Peoples Loan and Trust Company, Rockville, Ill., and was married August 26, 1922. "That's all" he wrote. Well, that's about enough for one letter from the average man.

Letter returned from Roy Wanser. Who can supply his present address?

Received a note from you addressed to (my son) Francis F. Coleman, regarding some notes you wish him to send you for the Technology "Review."

Francis left here on June last for a tour of Europe and has not returned yet. Had a letter from him today, written when he was in Innsbruck, Austria. He stated he was leaving for Rome on that day.

Thought I would write you so you would know why Francis had not answered. *M. J. Coleman.*

The following press report from the *Globe* of June 22 will give a more detailed report of Larry Marshall's wedding.

"Miss Muriel Arline Wardrobe, daughter of George E. S. Wardrobe, of 31 Rogers Avenue, Somerville, a former member of the School Board in that city, and Lawrence Parsons Marshall, son of Mr. and Mrs. William B. Marshall, of 71 Summer Street, Everett, were married last evening in the West Somerville Baptist Church, in the presence of several hundred relatives and friends from Somerville, Concord, N. H., Methuen, Mass., St. Paul, Minn., and suburban Boston.

"The bride was remembered with many gifts; she is a graduate of the Somerville High School and Burdett College, and a member of the Alpha Theta Pi Sorority of the Somerville High School. In the World War, the bridegroom was a lieutenant in the United States Naval Flying Corps. He is a graduate of Wesleyan University and Massachusetts Institute of Technology, 1917, a member of the Phi Mu Theta Fraternity of Wesleyan, also Palestine Lodge of Free Masons. He is a mechanical engineer. Mr. and Mrs. Marshall will pass their honeymoon in the White Mountains."

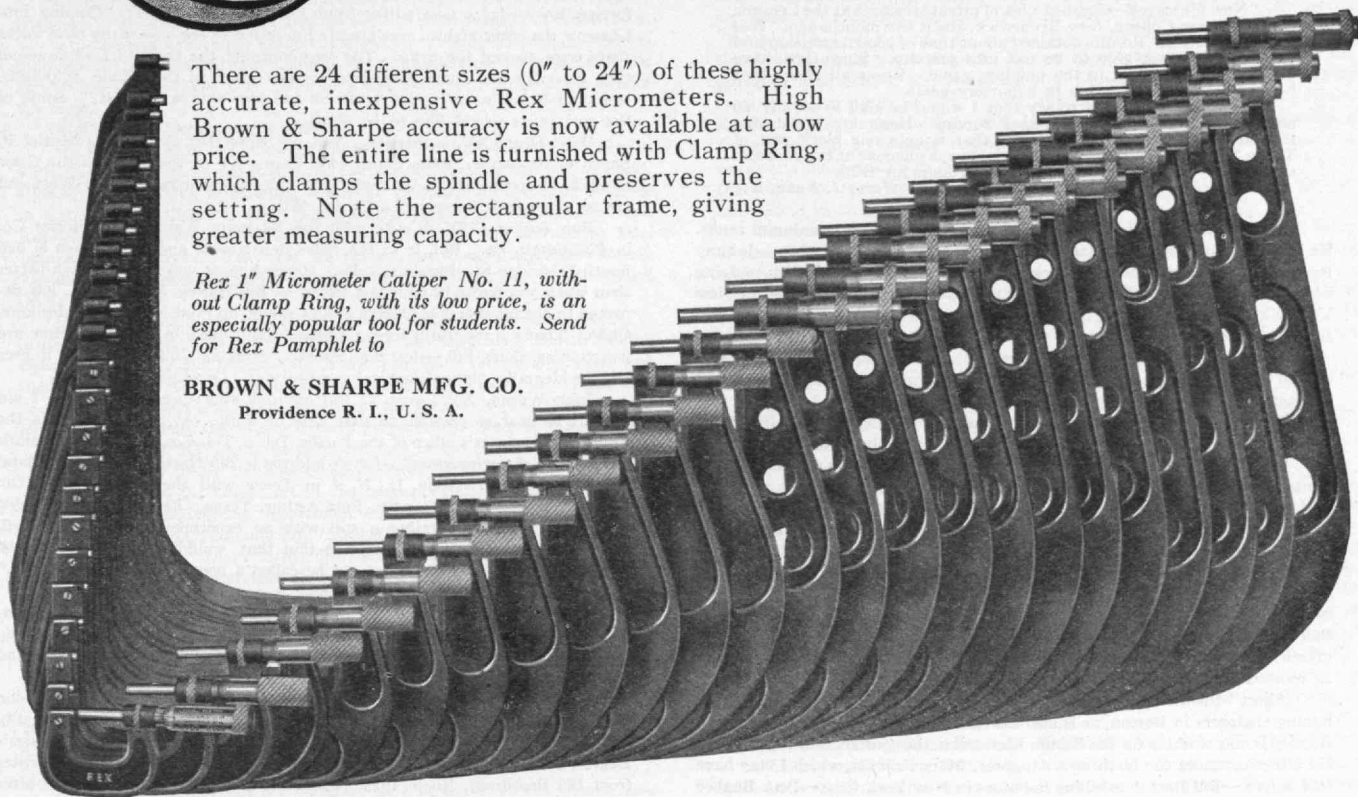
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1920

KENNETH F. AKERS, *Secretary*, 54 Dwight Street, Brookline, Mass.

Hello Gang:

The first issue under the new editors! I am glad to say I have a little news for you. If we are to have notes in every issue, you must write me the news. It all rests with you—I'll try to have some in every issue—so here goes for this number! You must come across in the next month for any news items for the following issue.

Marriages were fairly numerous! Erskine D. Lord tells us of his marriage to Miss Vivian Sutherland, September 12, 1922. We extend to him all the best of good wishes.

"Stan" Stanwood also joined the benedict's club. His marriage to Miss Thora Giorloff took place September 9, 1922. Good luck to you, Stan.

Third entrant to the above benedict's club is Wilford Hooper. Gertrude M. Haynes burns his oatmeal mornings—"Heinie" Haskell comes in fourth place. He stepped off from the firm ground of bachelorhood on June 30, 1922. Miss Beatrice Williams takes charge of his affairs from now on.—Robert Tirrell was married September 23, 1922, to Miss Edith Averill.

These marriages are coming so thick and fast that I've run out of expressive thoughts, so here's the list:

Howarth Collins to Miss Ellen Leeming on September 30, 1922.—"Pete" Ash to Miss Olive Snow on June 10, 1922.—Bob Robillard to Miss Anne Davis on May 30, 1922.

Frank Babbitt has taken his first degree towards the benedict's club, having announced his engagement to Miss Grace Cogger. We'll be on the watch for the second degree.

"Stan" Harris is to instruct in mathematics at Carnegie Tech this fall. —"Clint" Bond our old No. 1 man on the Tug-of-War team, leaves for a three-year trip to India for the Standard Oil Co.

With great regret, I have to tell the boys of the death of Ray Sandiford. His death took him away just at the prime of life. He had done valuable work in research work. While in Rochester, he was associated with Dr. Walter M. Boothby in the Metabolism Laboratory of the Mayo Clinic. Although his health prevented him from devoting much time to his work, yet he carried through some very valuable mathematical studies in connection with the problems undertaken in the laboratory. Only one piece of work reached the stage of publication, which was a paper on Nomographic Charts, the outgrowth of his work with Professor Lipka of whom he thought very much.

While the principles involved in the construction and use of the charts are quite familiar to the engineer, yet it was practically unknown to those working in the medical sciences and his paper, therefore, was not only the construction of certain charts but served as the introduction of the nomographic chart principle to the workers in the medical sciences.

"Snug" Etler is now in the sales department of the Bemis Bag Co., and states he is still enjoying matrimonial freedom.—Bob Sumwalt has left engineering and is in the insurance business in Cheraw, S. C.

Here is a letter from faithful Harry Kahn, which contains much news:

"April's class notes for 1920 were a bit short. Suppose it's the fellows' fault, yours truly included. Am going to try a stunt to add a few more lines to said notes. If I don't get a wide berth from some of my former playmates after the next issue of the 'Review,' I'll call it a success.

"Here's how—sounds like pre-prohibition, eh, what? Every time men meet they naturally ask each other howzeverything? watchya-doin? whereyabin? etc? I've been in New York about six months and have run across quite a few 1920 men. From now on, after having one of the above dialogues with anyone, I'm going to drop you a card or, if his tale is long, a letter telling about him. I may lose a rep, or gain one that I do not want, 'cause there are some men who are secretly working on their first 10,000,000,000,000 and who do not wish others to know about it; but I think some of these will not object to having their 'old' fellowworkmen know that they are still alive.

"Last night paid Sam Schenberg, X, a visit. 'Twas very pleasant. Sam is teaching general and applied chemistry at the Bay Ridge High School. For the benefit of those not familiar with Brooklyn, B. R. H. S. is all for the gentle sex. Very little chance of Sam being vamped for Mrs. Schenberg, Jr., sure can bake cakes—and Sam sure does like cake. Almost makes me think of getting married. Jeff Meade, X, and Sam Ruttenberg, X, were also supposed to be with us, but Jeff's after-working hours are pretty well taken care of now. You see, Jeff has become a proud popper last week. He's all off red-dog 'n everything. Jeff is working in Brooklyn, N. Y. He lives in Jersey City. Over the phone, Jeff admitted that he was not v. p. of the concern, but hoped to land that position by New Years.

"Sam Ruttenberg had a board of directors meeting or something like that. Believe Ruddy is working on his second million now. He left the G. E. about four months ago to put an idea of his own on the market. The way the orders are coming, show that he had the right idea. Will let you in on this. Ever hear of Amperite? That's how Ruddy told me to start my sales' talk at his booth at the N. Y. Radio Show. Then I tell how Amperite does away with rheostats and automatically keeps the current in your tubes constant. Some of the largest radio manufacturers in the East are installing Amperite in their sets. Incidentally, Ruddy has been writing a series of articles for the New York Globe's Saturday Radio Magazine.

1920 Continued

"Attended a few of the Monday night talks at the Technology Club. Met Art Atwater and Ken Roman there. Atwater was working for the Beechnut Gum Company. He offered me a slab of gum as evidence. Ken Roman was still in the advertising department of the Peggy Page Dress Company, New York.

"Once upon a time, about three months ago, I met Donald L. Dowling, X, of McNab and Harlin Mfg. Co. He was on his way to put across a deal. After that, we went for lunch. I can mention half-a-dozen other men whom I have passed on Broadway. They all had a girl or a wife with them. Stopping them was out of order. Met Max Schlager, X, and Gav. Taylor, X, at the New York Chemical Show. That was so long ago that history may have changed since.

"Now for myself—finished a bit of private research at the Ceramic lab of Rutgers College, New Brunswick, about five months ago. Was there six months. Results obtained about time of good depression and were therefore not able to be put into practice. Since then, have been with my brother in the building game. Know all about that now and am seeking a job in a pottery again.

"Before closing, want to say that I would be glad to see any '20 men when they are around Times Square. Hang my hat during the day at 57 West 46th Street, and that is only one block east of Times Square. If I'm not in, there is always someone at the desk and she will try to make the visit pleasant. Yours for 1920,

Harry J. Kahn, X."

John Bates, who was with us for one year, is to join our alumni ranks. He is with Worcester Fire Extinguisher Co. in Montreal, Quebec.—Johnny Rockefeller writes that he has struck things lucky in New York City—doing what, he doesn't say. Ed Bragg writes he is selling iron and steel in New York City. In the bargain, he is the vice-president of the company, known as Egleston Bros. & Co., Inc.

Austin Higgins announces the birth of a daughter, Jean Frances, September 25, 1922. He also sends this bit of bad news along with his own glad tidings:

"Here is some class news which you may not have gotten. Ralph Brodick, who spent three years with 1920, went to Columbia University to finish up. Christmas eve, last, he started for Boston to visit his mother and absolutely disappeared. Nothing further was heard from him until the early part of April of this year when his body was discovered in the water off the Statue of Liberty. The circumstances of his death are very mysterious, as he had a considerable sum of money on him when he disappeared. It is known that he used to enjoy walking by the docks in the city and while he may have accidentally fallen in, this may not have been the case. I know there are a number of boys who roomed in the dorms with him at Tech, who will be shocked and grieved to learn of his sad end. I knew him particularly well, myself, having been a classmate of his at Culver, as well as at M. I. T., and he roomed with me at Tech in 1916-17."

"Skeet" Brown is doing research work for Richards & Locke, consulting mining engineers in Boston, as is also his running mate "Cy" Syner. "Law" Boyden is now working for the Boston Elevated in the construction department. He also announces the birth of a daughter, Mary Priscilla, which I may have told before.—Bill Barron is selling radiators in New York City.—Perk Bugbee announces the birth of a son, Richard. Congratulations Perk!

Georgie Burt is running back and forth from Baltimore to Boston, overseeing the operation of auto bus transportation for the various street railway companies in numerous towns.

That's the news for this time—keep it coming. Yours for 1920, Ken Akers.

1921

R. A. ST. LAURENT, Secretary, 754 Morton Street, Mattapan, Mass.

CAROL A. CLARKE, Assistant Secretary, 528 Riverside Drive, New York, N. Y.

What Ho! With a New Review published every month, a big task is lined up for us. Yes, 1921 is going to have notes in every issue! Now let's see a few come in. Although we are able to manufacture them out of nothing, of course they are not so satisfactory. All bull aside, write a few lines to myself or CAC as assistant secretary.

Joe Hauber, XIII, was up to the Stute during the summer with tidings of New York and New Jersey. Joe is with the Hastings Pavement Co., engaged in engineering work in the plant. His address is 390 Warburton Ave., Hastings upon Hudson, N. Y.—Ted Young, XIII, is with the Staten Island Shipbuilding Co., in the estimating department. If Ted is keeping up a record with as many C's as at Tech, he is moving along in the world.—Jerry Harold Zager, X, spent the summer working for the Boston Woven Hose & Rubber Co. He has now returned to the instructing staff at Boston College. Boys! it is now Professor Zager.

Joe Lurie, X, is also here in Boston—now with the Boston Woven Hose & Rubber Co., engaged in development work.—H. P. Field, VI, while at the Stute in the early summer, was looking for a running mate to help him wire up five towns up in the Catskill Mountains, N. Y. Windham Valley should blaze with radiance of many suns when H. P. is done.—Jake Jakobson, XIII, from reports, has tied in with his dad in the shipbuilding game. He is with Jakobson & Peterson who have yards in Brooklyn, N. Y. Greetings Jake, let's hear from you!

Congratulations to Paul Anderson, IX, who cleaned up with a degree and has recently been married to Miss Cecille Ogren of Brooklyn.—Larry Conant, XV, has just published a book, "Tackling Tech." I haven't seen a copy, but reports say it is good.

In June, '21 was strongly represented at Tech Night at the Pops during Senior week. The Class occupied about twenty tables, at which most were in attendance with escorts. Course VI-A occupied four tables, likewise X

was well represented. Among those present were: L. C. Pelkus, X, George Thomson, X, Josh Crosby, X, Woodie Wood, VI-A, John Seddon, VI-A, Dugie Jackson, Jr., VI-A, Ace Rood, X, George Atkinson, X, Red Whitworth, X, Taylor, X, Ed Wyld, X, Harold Stose, X, Harry Myers, X, Ivan Chambers, X, Johnny Sherman, X, "Spinach" Finch, II, Bob Haskell, II, Joe Lurie, X. This was not all by any means, for VI-A were out in full force.

Chas. Williams, VI, is at the Stute as instructor in the electrical department. We bump into him quite regularly.—Gus Diechmann, X, and X-A, after receiving his Master's Degree, sailed for Europe with his sister to seek foreign knowledge. Gus writes from Edinburgh, Scotland: "Coming into Glasgow the other night, I was greatly interested to see how many steel works there were around the town. The next morning, the train to Loch Lomond took us down the Clyde River and we saw much of the Clyde shipyards, including Brown's, where the *Aquilania* and *Lusitania* were built." Some of the rest of us would like to be along.

Wint Dean, XV, is married. Yes, on September 19, to Miss Muriel P. Smith of Brookline. Miss Smith took Course IV at the Stute in the Class of 1923. Reports tell us Wint and his bride honeymooned in the West and are to make their home in La Crosse, Wis.

Bob Barker, XIV, is now with the Harbison Walker Refractories Co. in Pittsburgh, Pa. Bob is in the Sales department and his address is 420 South Dithridge St., Pittsburgh, Pa. Here's hoping you like the town better than when you wrote in your last letter.—Bill Hawes, X and X-A, has departed to distant shores to Oficina Peña Grande, du Pont Nitrate Co., Iquique, Chile. That's a mouthful for an address when one's in a hurry. How are you coming along, Bill—learning Spanish, drinking Chile wine or is it beer and incidentally plying chemical engineering? Greeting's from afar.

John Wilson, XIV, says, "I am not following Course XIV, but I am keeping as near as possible to that kind of work. At present, I am in the equipment engineer's office of the Pacific Tel. & Tel. Co., learning the details of that sort of engineering." John's address is 295 North 24th St., Portland Oregon.—Owen G. Wilson, Jr., X, is in Texas with the Gulf Refining Co. His address is 1230 Proctor St., Port Arthur, Texas. From a letter, he says, "My work now is operating a still with an experimental tower attached. We are getting a degree of fractionation that would delight Doc Lewis' heart, so I suppose the work would be called a continuation of Course X." We are glad to hear from you and may it not be too seldom.

Johnny "Shep" Shepard, XV, is with the J. N. Polsey & Co., Pawtucket, R. I. This company makes wooden boxes and John divides his time between this and hunting.—Eddie Howard, XIII, is with the New York Tel. and Tel. Co. May we hear a line from you?

Bill Wald, I, is now with the Massachusetts State Highway Commission bossing the job. His address is 47 Wildwood St., Mattapan, Mass.—Buddy Turner, X, has returned to the Stute this fall to finish up and get his Master's Degree. We are plugging with you, Buddy.—Bob Whitehouse, XIV, writes from 195 Broadway, Room 1915, New York City. "I came right here after graduation and took a job in the engineering department of the Western Union Telegraph Co. At the present time, problems of inductive interference are occupying my attention, principally." We are glad to hear from you, Bob. Won't you send another line in a little while.

John A. Gray, II, wrote a splendid long letter early in the summer, reading as follows:

"Course II men of 1921 do not seem to take advantage of the 'Review' to let their classmates know where they are and what they are doing in as many cases as I hope they soon will.

"At present, I am with the Sullivan Machinery Co., at their Claremont, N. H., plant. Claremont is a beautiful town, nestled among the hills and we have fine facilities for tennis, golf and various outdoor sports. Bill Kennedy, II, 1921, is with the S. M. Co., and lives at same farm.

"Recently had dinner with Larry Burnham and Phil Nelles at the Valley View Club in Akron, Ohio. They are in the experimental department of Firestone Rubber Co. Harry Johnson is with the Beckett Paper Co., at Hamilton, Ohio, and I was his guest at the Hamilton Y. M. C. A. on several occasions. Harold Sturtevant is a sales engineer for the Sullivan Company in Ohio, Indiana and Kentucky. Steve Seamos is designing structural steel for a large hotel which is to be erected in Boston soon.

"I have taken the liberty of answering roll for the above men. Other II, '21 men—let us hear from you. I wish that we might inaugurate a Round Robin among the boys, so that we might know what they are doing in the wide world.

"Ed Noyes, III, is also a sales engineer for S. M. Co., and we hear from him in various parts of Iowa, North and South Dakota, Wisconsin, and Nebraska. Heard from Rom Mellen recently and he is connected with The Golden Cycle Mining and Reduction Co., at Colorado Springs, Colo. Rom is close to the gold these days. Tech-nically yours." What do you say, Course II, let's have you kick through with some notes.

CHARLES H. JOHNSON M. I. T. '05

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1921 Continued

Larcom Randall, VI, has been spending his time working with the *Boston American* and City of Boston in prosecuting the Edison Electric Illuminating Co. of Boston for high rates. We have seen the results. Price of juice recently dropped from 10c to 9½c per k. w. h.—Jim Ford, XIII, is working in Tech's wind tunnel doing research. Drop a line to tell us just the true dope.—"CAC" Clarke, VI, is with the Western Electric Co. in New York. CAC is making good with a bang in loud speaking radio development work. Say, Gang, won't you just drop CAC a line in reply to the postcards he has sent you?

Chris Nelson, XIII, has joined the happy throng of "two can live cheaper than one." In June, Chris was married to Miss Ruth Wheeler of Watertown. The wedding was held in the garden of the home of Miss Wheeler on Middlebury Road. Reports tell that Chris is in the engineering department of the New York Tel. and Tel. Co. Drop us a line about yourself and the rest of the crew.

Roll call of a few Course X men:

Joe Gartland is in the laboratory of the National Carbon Co. at Niagara Falls, N. Y.—Ace Rood has joined the Carbon Arc Welding Co. in Cleveland, Ohio.—Oscar Neitzke is planning a trip to Germany for a Doctor's degree in chemistry.—Al Breed is doing engineering development work for the Hood Rubber Co. in Watertown, Mass. On October 7, Al was married to Miss Blanch Hoyt of Lynn. Yes, yes! we extend our congratulations.—Woody Woodward is solving Proctor & Gamble's deep problems out in Cincinnati, Ohio.

W. J. Edmonds, X-A, is with the Eastman Kodak Co. at Rochester, N. Y. in the development department.—Ed Wylde has cast his lot with Wilson Bros. Laboratories in Chicago. Ed is going to learn the packing game and then go camping with the Katzayammer Diechman. Hey, Ed? Drop us a line.—Sol Silverstein is assistant director at the Bangor X-A station. Bangor has more attractions than just chemical engineering. Thanks for the card.

Harold Stose, XIV, is a research associate in the research laboratory of applied chemistry under the new director, Prof. R. T. Haslam.

Hank Adams, X, hangs out in the barracks at the Stute as assistant in the chemical engineering department.—Red Whitworth is chasing H. C. N. at the American Cyanamide Co., Elizabeth, N. J. Whit says the H. C. N. hasn't got him yet. Don't forget our party, Whit, and drop us a scrawl.—Bill Hayward is superintendent of the Benzol plant out at the Lackawanna Steel Co. in Buffalo, N. Y. Say, Bill, have you still possession of that corn-cob pipe you had during thesis?

"Budatoes," George Thomson, is an assistant in the heat measurement laboratory under Prof. Wilkes.—Ken Bates is in the same work as George. Same pair—Leight Evans is X-A assistant director at Buffalo.

Rich Clark is an oil refining engineer. Having carried on experimental work at the Stute for several months, he leaves for Texas in several days to apply his findings. His address is Humble Oil & Refining Co., care of Baytown Refinery, Houston, Texas.

We haven't put in half the notes we have on hand, so watch next issue and the next for another raft. Don't let this fact, however, prevent you from writing.

1922

ERIC F. HODGINS, *General Secretary*, Room 3-209, M. I. T.

The ponderous cogs of '22's news machine have begun to revolve with a surprising smoothness. This scheme of course secretaries is going, it is now easy and safe to say, to work like a charm. With no less than eleven men to pass the buck to, with a smooth president and a hard-boiled executive committee to which to complain when anyone of the eleven gentlemen on whom we strive to pass the buck revolts at the receiving of it, the gensec is going to have a fairly easy time. He has already so much information for the first issue of the "Review" that, without saying anything himself, he could merely sit back and let Messrs. Hennessey, Holderness, Stevens, Lavery and Brown spin their yarns without interruption and without embellishment. He could, and perhaps he will. We have so much news this time, that there is not much necessity for any injection of that peculiar brand of literature the product of which has brought the gensec into such wide ill-repute. The

manuscripts of the Course secretaries as they at present lie upon his desk (we refer to the manuscripts, please) bulk very large, indeed, and the gensec is now surrounded by a corps of cursing stenographers who are attempting to transcribe these notes from the original sanskrit of longhand to the comparative legibility of the Underwood 5. S. P. McConnell's handwriting is particularly vile, and by way of adding insult to injury, he writes his notes on a train. They may not bulk so large on transcription, nor may some of the others, but until the gensec finds this out, he will possibly (so take heart) be wary about adding comments of his own. After all, we have got to remember that there are some other classes who are trying to crowd notes into this issue of the "Review," and we have got to give them a little space. The exigencies of the New Typography to which the "Review" now subscribes make necessary the judicious sandwiching of advertising and Class notes, with first a streak of fat and then a streak of lean. We fondly hope there is enough advertising. R. H. Brown, in particular, will be an inspiration to the Advertising Department to go chasing to get enough to put opposite his pages. But we have already taken up a good deal of room by our assurances to everyone that we can't take up any room. We shall consequently proceed to the business in hand.

Courses I, IV, V, VII, X, XI and XV are due to report in this issue, and hence they do. The schedule of other courses does not call for any notes until next month.

We are happy in having with us this evening a man whom you all know too well to need any introduction from me:—a man whose activities in his chosen field have led him to the very heights of his profession. I take great pleasure, ladies and gentlemen, in introducing to you Mr. J. F. Hennessey, who will speak on the subject of "The Problems and Opportunities of the Civil Engineer in Modern Life." Mr. Hennessey. (Applause.)

Course I, J. H. Hennessey, *Secretary*, 16 Henry St., Brookline, Mass.

Herewith is submitted what has come to hand (directly and indirectly) concerning the young hopefuls of the Class of 1922, Course I.

Three members of the Class, Ed Keane, Fred Britton and Larry Gentleman have consented to aid Prof. Spofford in bolstering the C. E. Staff and accordingly have signed up as assistants.

The State of Illinois is the scene of operation of most of the Highway "Gang." Notable among them are Joe Ward, late of the Lounger, Doc O'Connor, Pod Halpin, Bill Daley and B. Y. Cychol. God help the State of Illinois! Bill Barrett and Chick Moore are working in the Northwest region of the Penn System. When they hang their hats in Chicago they're "at home." Likewise, is Dedouloff, who is working for the Chicago Great Western R. R. Co.

Bill Meuser is he whom Ring Lardner would undoubtedly nickname a glutton for punishment. He didn't get enough at Tech so he is P. G.-ing at the Technische Hochschule zu Berlin.

Major Styer is going great guns at Washington. He writes as follows:

"Your very welcome letter was received a few days ago, but as I have been away from town for the past few days I have just found time to answer it.

"I don't envy you your job of collecting data from the various members of the Course, as I imagine by this time they are pretty well scattered to the four winds. I have been trying to establish liaison with the 'Tech' men here in town, but as yet haven't found much time that I could call my own. The Tech men here have a weekly luncheon at the University Club, but so far I have managed to attend but one,—I hope to have better luck in the future.

"Immediately after graduation I was ordered to Washington for work in connection with the construction of four Diesel-Electric seagoing Hopper Dredges for the Engineering Department. These boats are to be 268 feet long with a hopper capacity of 1250 cubic yards. The main engines consist of three 1000 B. H. P. McIntosh-Seymour Diesel engines, each driving a direct connected 750 Volt D. C. generator. They are twin screw with a 700 h. p. motor on each screw. The 26" centrifugal dredging pump is driven by an 800 h. p. motor direct connected to it.

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1922 Continued

the main propelling motor can be controlled either from pilot house or engine room. Bids for the construction of these ships were opened August 2. The low bid for the four boats was about \$2,500,000. I will have supervision of the inspection for the war department and expect to have a very interesting time of it. I have been put in charge of the Marine Design Division of our office in addition, so it does not look as though I will have far to look for something to do.

"I was in Cincinnati about three weeks ago and saw Bonfils who is out there engaged in lock and dam construction on the Ohio River.

"Vaupel told me before he left that he expected to go into the stell game. Am glad that he could follow up his wishes.

"Am glad to hear that you have such a congenial boss and wish you success in the contracting game.

"Tis rumored that Schwab and the other steel magnates are much perturbed about their laurels since Bill Rapp, Mike Gordon and Johnnie Vaupel entered the game at Bethlehem, Pa. By the way, John's engagement to Miss Maud C. Chandley of Brookline was recently announced.

"A Clipping from Grinnell, Iowa, states that Stan Raffety has an excellent position in the offices of the Ferro Concrete Construction Co., Cincinnati.

"Sam Cohen employed by the Harris Structural Steel Company is staying at the Technology Club in New York, while Sig is designing for the Bancroft-Jones Corp.

"Oscar Horowitz is with the Corrugated Bar Co. He reports everything going finely but is very lonesome for Neville Du Vernet, who is in Canada. Wonder whatever took Nev up there?"

Thus ends the first installment — to be continued in January.

We are happy in having with us this evening a man you all know too well to need any introduction from me — a man whose activities in his chosen field have led him to the very heights of his profession. I take great pleasure, ladies and gentlemen, in introducing to you Mr. George S. Holderness, who will speak on the subject of "The Problems and Opportunities of the Architect in Modern Life." Mr. Holderness. (Applause.)

Course IV, George S. Holderness, *Secretary*, 39 Gramercy Park, New York City.

There is an old Chinese proverb to the effect that time and tide are always in a hurry, though Confucius himself attempt to say them nay. Which means that this is now Saturday, and there is no possible way of preventing Monday from coming day after tomorrow, and the Architects must be represented in the "Review" at all costs. The tide has nothing to do with the story.

From June to October is a short while, yet not too short for the Course IV grads to commence tearing off history in great parcels. For the secretary the story centers about Gramercy Park, in lil' ole New York, where he hangs his hat under the same roof with that charming and sociable coterie of Tech men, Messrs. Carven, Dimmock, and Pfohl of '22, Farren, of '21, and Sullivan of '23.

Chris Carven, erstwhile playwright and theatrical magnate of the Institute, has just finished his 956th house for Cross and Cross, architects on the Avenue, and has gone in for moustache wax, canes, burglar-proof boxes, and Brooklyn relatives as side lines, with an occasional fling at Coney in season. There is no chance for him to get away with any fish stories in the office, for on the next table is no less a one than our Hemmy, the same Hemmy who always used to look under the bed at night, but consistently without any luck. Hemmy is living in an apartment in the choice eleventh street district with Peggy Kimball, '21, but we are urging her to move to her own house when her folks return and open up the cellar. Ross Wiggs, de Bas Canada, wielder of the wicked pencil, blew into town not so long ago, and is showing H. T. Lindeberg how country houses should be done. We tried to lodge the Canuck in our modest shack, but there was not room for himself and his wardrobe, so he gets his mail now at the Allerton House, on the roof of which we frequently meet at noon, and jolly well feed our faces, what?

Marion Dimmock is attached for rations to Geo. B. Post and Sons (Willie and Otis), and is personally acquainted with E. M. Statler, so whenever you want any favors at the new Bostonian Hotel just mention his name. Dimmy is hitting the high spots along the so-called Gay White Way and sometimes even carries a cane (when Chris doesn't use it). His specialty is sending jewelry to girls, all of which, so far, has been returned. Anyone wishing an imitation pearl necklace, cheap, will do well to consult Demmy. Ross Pfohl is designing I beams and rivets for Moran, Maurice, and Proctor, who are among the country's biggest Foundation experts, and claims that, in this way, he is getting at the bottom of architecture besides acquiring an understanding of the building business. Walter Anderson has the euphonious title of Interior Decorator for Childs' Restaurants, and we would venture the assertion that there is plenty to keep him busy. Andy, at least, knows where to get three squares a day.

Out in Chicago, Howard Baldwin is working for Holabird and Roche, and reports that he is feeling more like an architect every day. The old gang at Rogers will be sorry to learn that Baldy lost his Father during the early part of the summer.

Getting back to the environs of the Hub, we learn that Warren Ferguson is in the efficiency department of the Boston Woven Hose and Rubber Co. Fergy forded it into the rough country of the Middle West this summer, stopping for the Y. M. C. A. Conference at Lake Forge, and shooting a few Indians from flivver-board, as the Lizzie penetrated the frontier country. Didn't say whether they put him in the efficiency department because they make hot air hose. John De Witt Clinton Archibald is everything from overlord of the designing table to exalted custodian of the blue-print files in the

office of MacNaughton and Robinson. Arch says he is not yet bankrupt, and intends, personally, to slide down the handrail of every set of stairs he designs. Cass Amon prodded the Venus for Allen and Collins this summer, and then went back to Kentucky to fill up on rest and moonshine before returning for a fifth year at Rogers. Georges Wiren, of Petrograd and Boston, did right cleverly when he selected an employer for the vacation period who owned a fifty-foot power boat, which craft, Georges plied up and down the rockbound waters off the North Shore, making sketches galore, and dodging the heat of the city. Neither is there anything small about Ilya Georgevitch, the young Serb, having designed a whole town at or near Egypt, Mass, while the rest of us were fretting our time away on full sizes and kindred afflictions. We understand that Dirk Luykx has flown the American coop, so to speak, and now can be reached in Paris, in care of the Consul General de Pays Bas.

Word has reached us recently that Henry Buck, that well-known dispenser of good cheer on all-night charrettes, is serving the Architectural department of the Government in Washington. H. M. Rosengard is draughting for the Springall department of the Pitman & Brown Co., of Salem, and Johnnie Gunther is drawing pay from our old friend, Harry Stearns, on Newbury Street. We feel a hesitancy in saying "working," for Harry is in New York most of the time. Down in Philly, Dave Shotwell, more tenderly remembered as official gonger for the Architectural Society, has managed, in some clever manner, to dodge the sleeping sickness, and is returning out some snappy Hittite mantelpieces for Stewardson and Page.

It is an ill windy city that blows nobody good, says Ed Merrill and Mark Ellsworth, who are making a living, (and that is saying a good deal,) in Chicago. Mark is doing engineering work for Robert S. De Golger, and the high-jumping fiddler is connected with A. S. Alschaler in industrial work. Stanley Ryerson is working on schoolhouses for the Frank Irving Cooper Corporation, of Boston. Lang Cleves is catching the mountain air in North Carolina, and, as we are writing this line, he is walking in our door, having dropped in to pay his compliments en route back to the Institute for further light in architecture. Art Jones is following the profession in Charleston, and says he hopes to catch up with it before long.

And now a word for those sterling young men and women from Rogers who have been beset with the call of Hymen, and have denied it not. By the time this goes to press, Hot Vignoles will have promised, solemnly, to cherish and obey Muggins Wall, and two Architectural geniuses will be genies as one. Hot is working for Maginnis and Walsh, besides doing the dishes evenings at home. And then there is Roger Hayward, Maitre de Poster of so many an Architectural Society campaign. Since the tenth of September, Roger has been turning over his pay checks to Mrs. Roger, who was formerly Miss Elizabeth Hatfield of Roslindale. Here's wishing much happiness and contentment to the four of them, as well as to Dozie Swan and his fiancée, who contemplate hurdling that well-known broom in the spring. Dozie is working in Madison, Wis., and has a Stutz, which he intends to drive East and turn in for two B and A tickets West.

Two other girls of '22, bless 'em both, are following the business hook in Englewood, New Jersey, and Marjorie Pierce, after a summer of work in Boston and recuperating from it in Maine, is back at the Institute taking a whack at the graduate staff.

It seems that we can't get the old school germ out of our systems, which accounts for the fact that Dimmock and the author of this literary protoplasm are taking Class A projects at the Beaux Arts Institute, the former working in the Atelier Wynkoop, and the latter under Hirsous, where he is with Len Botting, '21, and will be joined later by Chris Carven.

Bert Weber docked yesterday from Europe, and we had a great evening with him, learning of the trials and pleasures of a hurried trip through the Continent and England. The Flying Dutchman left to-day via Marmon touring car, for Chicago, where he will show Howard Shaw the latest wrinkle in architecture as she is did. We are expecting Al Pierce back from the auld country shortly, and also Bob Coupland and Slick Schley, on the way up from the South. Bob worked for a New Orleans architect, had lots of indoor sport, and is now going back to Boston for further research into this glorious study. Architecture, we mean.

There are other members of Rogers' best class from whom testimonials of conduct have been solicited, via mail, but sans results. We hope to see either Uncle Sam or the delinquents snap out of it the next time.

We, of New York, will feel neglected if any one of the architects of '22 should come through without giving us the "hello" sign. The lachstring at 39 is always on the outside to them, and we hope it gets worn to a frazzle from the hands of our old classmates who drop in to see us.

George has kicked through in fine shape, as the appended record testifies, but during the summer he turned our hair almost gray. We lost him in June and we didn't find him again until two weeks ago. He left Boston, and our attempted communication with Pine Bluff, Arkansas, of which hamlet he is a native son, did not yield any results. We consulted the Architectural Department and the Architectural Department said, — "Certainly, he's in New York." If we had had the opportunity of going to New York, we should probably have met George just outside the Grand Central Station as we emerged from the train, assuming that the providence which led our footsteps into the paths of two other Tech men in the Public Library in June was still guiding our footsteps. Unfortunately, we couldn't go to New York, and due to the recent economic expansion of the city, we doubted if a letter addressed to George S. Holderness, New York City, New York, would necessarily reach him. But just in time we learned that his address was 39 Gramercy Park, and so we sent a breathless telegram to him. We got an equally breathless one back, begging us to be calm and await the closing date with full confidence.

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1922 Continued

We waited, and we were justified. Justification is printed on preceding page.

Course V is next in order. S. Parker McConnell, may his tribe increase, — and it probably will, — is the official Arthur Brisbane for this, but surrounded as he is by an impermeable membrane of members of Course X-A, he confesses that almost nothing concerning Course V has filtered through.

We are happy in having with us this evening a man whom you all know too well to need any introduction from me — a man whose activities in his chosen field have lead him to the very heights of his profession. I take great pleasure, ladies and gentlemen, in introducing to you Mr. Amos Henry Stevens, who will speak on the subject of "The Problems and Opportunities of the Biologist in Modern Life." Mr. Stevens. (Applause.)

Course VII

A. H. Stevens, *Secretary*

11 Wollaston Avenue, Arlington Heights, Mass.

The biologists are evidently too busy to write to the despised classmate whom fate has chosen to chronicle their action, but happily they are too few and, of course, too prominent in things biological to be entirely lost and there is available information as follows:

First comes the overwhelming news that Russ Tewksbury was shoved over the cliff on July 29, 1922, hand-in-hand with Miss Bethel Faith Palmer. The knot was tied somewhere in Worcester, Mass., and subsequent news of Russ and Mrs. Russ unfolds his occupation as in the Bureau of Vital Statistics, State Department of Health, Albany, N. Y. How about a letter, Russ?

The medical profession has interested half of our Class (yes, four is half of eight) and two of our members are assistants in Biochemistry in Medical Schools, while two others are studying for their M.D.'s at Harvard.

Bert Hershenson is assistant in Biochemistry in the Medical School at University of Virginia, and Squirt Perine is likewise at the University of North Carolina. Strieder and Stevens, or Steve and Johnny, are the two who at present dwell on the trail of Hippocrates (Father of medicine — see History of Science, third year general study). Four years from hence they may graduate from Harvard and hang out shingles on their gland farm. Steve is also doing work at M. I. T. for a certificate of Public Health from the Biology Department.

Radish Radin, after a summer at M. I. T. doing food research in the Biology Department, is about to go to work with the State Health Department.

Bob McLellan, after spending the summer in equal portions between the beaches and his father's business, is now in the Biology Department's research laboratory at the Stute, doing work on the coffee investigation which has been going on under Prof. Prescott and Dr. Emerson for some time. Bob, you remember, was the silent partner of the bread mold thesis.

Ray Hewes is with the du Pont people, working on fermentations and has invited the course to a reunion in the distillery — bring your own steins and stop at the bar to get titrated before entering the distillery.

Why was Tewksbury asked to write? Well, that was just a practice shot. Here's a gentle hint for the whole gang of you.

Fellow cat dissectors and sewage analysts; loyal ichthyologists and bacteriologists, cock your cockles to catch my warning — if you believe in keeping the Schleiden-Schwann theory inviolate, in preserving the annals of amphioxus in all their pristine loveliness, in allowing ontogeny to repeat phylogeny and in various other symbols of the fraternity of our biological colloquium, then I implore, beseech and command you to write in and tell as much about yourself as you dare risk publishing. Hereof, fail not, for, in the advent of another month or two of these great gobs of silence which have issued from your lips, and these empty pages beneath your poised (and probably poisoned) pens, the gensec, himself, together with my own evil contributions, will give you a write-up you'll never forget — and the gensec dangles an artistic malignancy. I know.

We are happy in having with us this evening a man whom you all know too well to need any introduction from me — a man whose activities in his chosen field have lead him to the very heights of his profession. I take great pleasure, ladies and gentlemen, in introducing to you Mr. S. Parker McConnell, who will speak on the subject of "The Problems and Opportunities of the Chemical Engineer in Modern Life." Mr. McConnell. (Applause.)

Course X

S. Parker McConnell, *Secretary*, Hotel Lowder, Bangor, Maine

The news I have succeeded in annexing, regarding the progress of the brethren in Courses V and X, is distressingly small. The explanation, I suppose, is the nomadic life that this Course X-A work thrusts upon one. Nevertheless, the fact remains, that my efforts in that direction yielded me information regarding just two men; T. S. Rader has annexed a job with the National Carbon Co. of Cleveland and Joe Forrester is working for the Carborundum Co. of Niagara Falls, — addresses unknown.

As a direct result of "The Parting Shot" issued at graduation time, I have received just three communications. Clyde A. Benson is garnering much valuable experience as a member of the Research Department of the Brown Company, doing plant work. Just who in hell * the Brown Co. is, or what they make, he neglected to mention, but, at any rate — there's that. His present address is 151 High St., Berlin, N. H. Ronald G. McDonald is making newspaper at the Pejepscot Paper Co. of Brunswick, Maine. Mail will reach him at Box 411, Lisbon Falls, Maine. He also mentioned that Shorty Carr, '18, and "Red" Bachman, '21, are there as resident chemical engineers. Joseph S. Baker wrote me on July 8th that he "had a very pleasant vacation until he started work with the Merck Chemical Co. a week ago." I can appreciate just how he felt! He is learning the ropes as chemist for one of their departments and says he likes the job very much. How a chemist should like it is one too many for me — (what say, Eric?) In an offhand and cold-blooded manner he mentioned that he was a married man, from which I gathered that the state of matrimony was an old chestnut with him and hence unworthy of mention in the "Review." His address is 52 Elm Ave., Rahway, N. J.

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The engagement of Miss Madeline Louise Bates to Irwin J. Smith, Jr., of Menands, N. Y., was announced late in August. Miss Bates was graduated from Russel Sage College in 1921 and the party of the second part, we proudly tell the world, was one of us. His example is not only an inspiration but proof sufficient that it can be done even by a Chemical Engineer of the '22 vintage. His classmates wish to extend to him their heartiest congratulations. A large percentage of them, we hear, are doing their best to emulate his inspiring example.

I got a postcard from Dave Minton, mailed from Spokane, Wash., the latter part of July. He seemed to intend a rather extended tour of the West, but I have no more recent information from or of him.

Tom Berlage is recuperating from the trials and tribulations of a four-year course at Tech at a watering-place in Germany. His operating base is his home in England—I do not have his exact address.

The justly infamous triumvirate True, Tyson and Wagner are still working true to form in Course X-A. Other members of my group are H. C. Gayley, L. B. Bridaham, E. D. Brown, R. D. Hunneman, L. E. Carlsmith, M. B. Donald and my own sweet self.

Tom Shepherd has gone and done it. But perhaps this is a bit too blunt and uncouth a manner of introducing a subject such as this, even if it does pertain to friend Tom.

To attack from another angle—I might almost say, to counter-attack—the society columns of the Boston newspapers of about June 10th were replete with the news that at a dinner dance at the Commonwealth Country Club, Thursday night, June 8th, the engagement of Miss Anna Christley to Mr. Thomas Elwell Shepherd was announced. Miss Christley, the daughter of Senator and Mrs. A. M. Christley of Butler, Pa., is a graduate of the Sargent School in Cambridge. Those of us who have been privileged to know Miss Christley appreciate the rare and generous manner in which Dame Fortune has smiled upon Tom. All of us join in extending to him our heartiest congratulations and sincerest good wishes.

The Barnes and Berry combination seems to have run into geographical difficulties. Barnes has annexed a Fellowship at the Municipal University of Akron, Ohio, where he plans to specialize in the chemistry of Rubber, preparatory to entering the employ of the Goodyear Tire and Rubber Co.

1922 Continued

Berry, on the other hand, has hied himself to Willinoctet, Maine, where he has accepted a position with the Great Northern Paper Co.

Among the passengers aboard the White Star Line steamship *Pittsburgh*, sailing from Commonwealth pier, South Boston, on September 2, was José Espinosa. He is returning to Manila by way of Europe.

Because X happens to be the gensec's own course, he has a few addenda which may judiciously be added. A great deal of valuable news has come in from several unofficial but hard-working sources. We have consequently learned a fair amount of news.

We might say that the activities of our course mates are amazing in their revelation of the number of paper mills that seem to be in this country. Paper making is a valuable occupation, of course, but we did not believe that it was the major industry of the U. S. Apparently, we are wrong. It seems to us as if every day this summer someone has stopped us in the corridor and said, —"Heard about Bill Whosis? He's working in a paper mill now." . . . A partial list of those who are gradually turning this into an emphyreatic world are Walt Lennon, Mort Bloom, Pete Sloan, Don Gross and Jerry Boyer. This is by no means all. . . . And Course X has not furnished the only victims. J. E. Salloway, Secretary of Course II, has undertaken a like life work. Roughly, ten times this number of men are so engaged, we are certain, but their names are not at hand just this moment. . . . Next to the paper mill, the teaching profession seems to have claimed the largest number. A. J. Maria is now connected with the Department of Mathematics of the Rice Institute at Houston, Texas. He reports that another Course X man, (Course X-A, in fact,) Hartsook, is an instructor there. . . . Besides the which, we must record that Bob Russell is now the Research Assistant with the Laboratory of Applied Chemistry. His situation is one of the basement rooms under 2-110, and his occupation consists of sitting with his feet on the desk and smoking Camels, and enigmatically watching a retort in which some amber liquid stirs uneasily at the presence of a Tirrell flame. He reports that everything is going excellently. . . . It certainly seems to. . . . In addition to Bob, there are others now engaged in academic pursuits at the Institute. . . .

A. B. Alland is an assistant in Organic Chemistry now. . . . So is L. H. Rice, whose course is V, but who fits in here conveniently because he is an office mate of Alland's. . . . Bill Hoops is now an assistant in Chemical Engineering. . . . Looie Tabor is another man who has a teaching job. His position is of unique interest to the gensec because he is now Master of Physics at the Episcopal Academy in Overbrook, Pa. In the old days when the Academy was located at Locust and Juniper Streets in Philadelphia, the gensec was a student there, and Looie's appointment to the Chair of Physics gives us a most happy means of renewing our youth.

On page 158 of the "Journal of Industrial and Engineering Chemistry" for September, 1922, there is a most interesting bit of news. It is in the form of an advertisement stating that Waller V. Morgan, S. B., is a Chemist specializing in analyses, research and by-product development, with electrical problems also handled. His address is 149 Urban St., Mt. Vernon, N. Y., and as soon as we want anything analyzed, we are going to take it to him. For weeks we have been trying to think of something to be analyzed, and we haven't thought of a thing, but Waller need not despair of our trade as soon as we get an idea.

Speaking of analyses, the ultimate of irony has come to our attention. George Shattuck is now connected with the Weston Boven Rose & Hubber Co. and the unfortunate lad is busily engaged from seven in the morning to six at night in analyzing dry flue gas! Our heartfelt sympathies go out to him.

Advanced work at the Institute has proved attractive to a number of people. C. M. Welling is taking the so-called Reverse XA and has just done a Master's thesis on corrosion, which has proved remarkably interesting. Interesting to Haslam, we mean. It left us completely cold, but that's only because we have definitely renounced science. . . . Beginning in January, the Duke will start on the XA practice station tour. . . . A. J. Freheit is at present working on a Master's thesis in the Chemical Engineering Division. He is doing this work in conjunction with L. H. Friedmen. The lure of science

has likewise claimed Freddie Guerin, who is beginning work on his Master's degree, and who is going to do it in Course V. . . . F. G. Hamilton is likewise back at the Institute for advanced study. . . . Bill Rich is another one. . . . The gensec had an interesting letter from Bill Stose the other day, in which Bill records that scholastic honours at the Boston XA station went to Messrs. Ricker and Heathman, the only two members of the group to get C's. . . . Bill invited us to attend, in our reportorial capacity, a function shortly to be held by his group. . . . We understand that there is to be a lynching at 4.30 a. m. on Tuesday, November 21, at the Hotel Lowder in Bangor, Maine. . . . We have replied to Bill accepting with much pleasure his kind invitation.

We are happy in having with us this evening a man you all know too well to need any introduction from me—a man whose activities have lead him to the very heights of his chosen profession. I take great pleasure in introducing to you, ladies and gentlemen, Mr. Francis J. Laverty, who will speak to us on "The Problems and Opportunities of the Sanitary Engineer in Modern Life." Mr. Laverty. (Applause.)

Course XI, Francis J. Laverty, Secretary.

Warren Howland and Hal Wilbur are with Sampson & Weston, Sanitary Engineers of Beacon St., Boston, the latter at present being engaged in making sanitary surveys of various watersheds in Wanaque, N. J. Dan Moynihan is teaching Sanitary Engineering at one of his alma maters, Canisius College, Buffalo, N. Y. Jim Stalbird is with the Massachusetts State Board of Health, Boston, Braintree, Swampscott, etc. Kid Lack and I are with the Sanitary District of Chicago.

There are five Tech men, including an ex-course XV student, here, so Chicago is gradually becoming educated. Anyone bound this way should know that any one of the five will be pleased to conduct a tour of Chi at the expense of the newcomer.

We are happy to have with us this eve—no, the formula breaks down. We can't introduce R. H. Brown's report with any of the ordinary glib phrases. It isn't a report at all; it's a doctor's thesis. In its original state, it was much longer than that which appears below. With all deference to Brownie, and with every apology to him, we had to cut it slightly. But we are eternally grateful for the trouble he took, and we hope that his next one will be just as long.

For a reason made manifest in previous pages, these are busy days for the gensec, and he consequently bows his best thanks, and sneaks unnoticed into the wings, while the vast audience is held captive by the torrential flow of Brownie's eloquence.

Course XV

R. H. Brown, Secretary

75 Glen Road, Jamaica Plain, Mass.

The writer breezed into the Tech buildings the other day and found the battlefield looking much as it used to be. The old guard instructing staff was again on deck and already had begun to work away on our successors.

Many have written to me personally, though not so many as I should have liked; others have written to Eric Hodgins and most everyone to Prof. Schell. Eric and Schell have kindly supplied some of the following data. Be sure to tell us if, when and what changes occur. If your name is omitted, it may be because I haven't heard from you direct. Nuff sed.

Tom Alder is studying production methods at Cheney & Co., Inc., New York. Andy Anderson is in the planning department of the Lunn & Sweet Co., Auburn, Maine, shoe manufacturers. Eddie Ash is industrial engineer for The Ginter Company, Boston. Better and cheaper groceries are in store for Mrs. Five Hundred. Bill Bainbridge is district salesman for the Dennison Manufacturing Co., New York; he covers the Bronx and part of upper Manhattan and hints that he has a very cosmopolitan group of customers to deal with. Charlie Baker is a "sort of assistant foreman in charge of inspection" at the Bilton Machine Tool Co. of Bridgeport, Conn. Morris Bauer spent most of the summer on a fruit farm in Bravo, Mich. Mich Bawden is with Stanley-Boston Co., Boston. His little girl, Nancy, was a year old in July and we understand she is a chip of the old block. Freddie Blackall as supervisor of heat treatment at Taft-Pierce Manufacturing Co. of Woonsocket, R. I., is advancing rapidly. Already, he has seventeen men under him. That doesn't mean that Freddie is working on the top floor. Gyp Blood is learning the steel business as laborer at Lackawanna Steel Co., Lackawanna, N. Y. Bolivar Boli married Maude Morton of Hatfield, Mass., in June. Now he is manager of the Hermitage Hotel in his home city, Louisville, Ky., and is reputed to be one of the leading citizens. Finn Borchgrevink is assistant to the sales manager of the largest chocolate business in Norway. He sold himself to the company executives by explaining the nature of his studies at M. I. T. and was quite

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1922 Continued

dumfounded when they hired him. He admits that any "sweet sixteen" knows more about chocolate than he does. Howard Bovey is learning milling business at Cannon Valley Milling Co., Cannon Falls, Minn. Bill Boyer toured to Ohio with Phil Stevens (IV) in a flivver after finishing up at the 'Stute. He will report when permanently settled. We note he acted as usher at Jack Kellar's wedding in June, so he's already done something useful. Chuck Brokaw started in the Diesel Engine shop of the Fulton Iron Works Co., St. Louis. We learn that he couldn't hide long in oblivion, for he was sent to Linton, Ind., to sell the City Council, "by cracker," a new power plant. In one letter he says, "It will seem just like getting back into one of the Institute Committee meetings. I am going down a day early and try to find out what kind of cigars are being advertised there now. This is my first attempt at lobbying in a country council meeting, but I imagine that I will feel right at home." Bill Brown is research engineer for the Parks-Cramer Co., specializing on air-conditioning equipment for textile mills. He is also working on a text and reference book on the subject of air-conditioning, to be published this winter by the above company. Incidentally, he gathers information from various sources for these Course XV notes. Al Browning is with the Robertson-Cataract Electric Co., Buffalo, N. Y. He is also a moving spirit in the Tech Club there, planning to revive monthly luncheons this fall. Atta boy, Al Buzz Burroughs is sales engineer for the Hubbard-Floyd Co., Inc., Boston, construction equipment. Lee Carroll is timekeeper and assistant engineer for the Foundation Co., New York. Rup Carven is with Coleman Disposal Co., Boston. Kepting Cavarly was first class deck hand on his father's 36-foot cruiser this summer. Nathan Cherniack is in the transportation engineering department of the Ward Motor Vehicle Co., Brooklyn. Yard Chittick took a gay trip to Wisconsin and back in a Ford during July with Warren Ferguson (IV). His interesting letter to Eric Hodgins is as follows:

"I have been intending to write to you for some time, but it was not until this morning when I saw a copy of the July Technology 'Review,' that my intention crystallized into action. It occurred to me, then, that I have not as yet received a copy of the 'Review.' As I recall, when we got back our unused portion of the laboratory fees last June, we were told that a certain portion had been extracted for something or other, and I was under the impression it was for the Technology 'Review.' If that is not so, please put me on the lists at once and send me the bill for a year's subscription. My address will be 176 North 6th Street, Newark, N. J.

"Haven't much news for you, but I'll go over the summer, just for luck. Warren Ferguson, Course IV, '22, and I drove out to Wisconsin and back in a Ford during July. We tried to see just as many of the boys on the way as we could. Saw Ralph Geckler, ex '22, in Cleveland; Oliver Bards, '21, in Cincinnati; Ab Johnson in Muncie, Ind.; Myles Zoller, '21, and Guy Davis in Chicago.

"Since August 1, I have been down at East Moriches, Long Island, most of the time. Tom Alder was down one week-end. Dave Minton spent the summer travelling out on the Pacific Coast. I hear that Joe Godfrey and Ed Thimme are working for the Public Service Corporation in (I think) Passaic, N. J. Warren Ferguson is with the Boston Woven Hose and Rubber Company over in Cambridge.

"I competed in the National A. A. U. Championships in Newark last week-end. While I was there, I saw Luke Walton, ex '22, who is Assistant Advertising Manager for L. Bamberger and Co., Newark's largest department store. Major Briggs was also there, officiating as chief field judge. Carl Dipple, '22, was there also, competing in the running broad jump for the Newark Athletic Club.

"My vacation is practically over now and I shall get to work in a couple of weeks. If you don't mind, I'll write you from time to time if I manage to pick up any news about any of the Class of '22."

Al Clark is located with the Clark Dredging Co. of Miami, Fla. You probably remember that he was married to Helen Hallahan of Attleboro, Mass., last March. He will be pleased to have any classmates call upon him when in Miami. Gordon Cushman is assistant to the superintendent at Ginter Company, Boston. He and Eddie Ash are competing for high honors in this concern. Larry Davis is District Sales Engineer for Crew Levick Oil Co.; his headquarters are in Providence, R. I. Shorty Dougherty is in the department of industrial economy, Eastman Kodak Co., Rochester, N. Y. He is working on time study, waste elimination, etc. He is putting Schell's dope to good use there. Bunny Driscoll is with Union Public Service Co., Canby, Minn., on construction and operation of power plants. Shep Dudley is in the engineering department of the Penn Metal Co., Boston. Minot Edwards is toolmaker at Waltham Watch Co. He started in on production control but that department went on the rocks soon afterwards (no fault of Minot's) due to financial difficulties. Ed Fales, the thesis orator, is studying the manufacturing processes preparatory to installing a cost system at the Decorated Metal Manufacturing Co., Inc., Brooklyn, N. Y. We recall that he became engaged in June. Be sure to send us the announcement, Ed. Hub Gault is with the New England Power Co., at Wilmington, Vermont. Lieutenant George is at U. S. Military Academy, West Point, N. Y., department of chemistry. Joe Godfrey is in for two years' training as "cadet engineer" with the Public Service Corporation of New Jersey. Bill Grady is located in Philadelphia as the local and district representative of R. A. Fife Corporation, Technical Sales Engineers of New York. He hints "not yet but soon" as to marriage. Randy Haigh is studying working methods in the engineering office of the Western Electric Co., New York, with special reference to telephone circuits. Hal Hallinan is development engineer for the Boston Woven Hose and Rubber Co., Cambridge.

His engagement has been announced. Monk Haltermann is also looking

toward domestic happiness, and the terms of the contract will soon be decided, according to latest reports. Windy Hammond is student engineer in the sales organization of Snow-Holly Works of the Worthington Pump and Machinery Corporation at Buffalo, N. Y. He expects to go to the New York headquarters, after serving a year's sentence at Buffalo. Larry Hand is with the Hand Trading Co., Pelham, Ga., cotton buying and collection department. Joe Harvey is doing specification and cost accounting work as assistant to the engineer of Belden Electric Manufacturing Co., Chicago. They manufacture electric wire. Sverre Henriksen is doing military service in the King's Guards at Bergen, Norway. He expects to "look like a regular lead soldier for the rest of the year." Incidentally, Henrik would like to be back at the 'Stute in spite of the "missing word contests," which he couldn't quite stomach, although he was a very successful guesser according to E. H. S. Gus Higgins is inspector for the new Lawrence (Mass.) High School now under construction. Phil Holmes is with Kalmus Comstock & Westcott, Inc., Industrial Research Engineers of Boston. He is working on a job for the Technicolor Film Co., which concern is developing an improved process of colored motion picture. Heinie Horn is working up into the sheet metal business at B. G. Carpenter Co. of Wilkes Barre, Pa. He has already advanced to "helper." Jack Kellar is one of the recent newlyweds, having married Lillian Ducayet of Newtonville late in June. He is now general supervisor of construction work for Wm. Kellar & Son Co., Contractors, Newton, Mass. J. Sterling Kelley is with the Franklin Fire Insurance Co. of Philadelphia. He is located in his home district, Beaver City, Nebraska, with C. M. Kelley, Agent of the above company. El Knight is at the 'Stute taking Course X-B for degree of M. S. He will finish sometime in December. Jazz Kurtz is salesman for Federated Engineers Development Corporation, Jersey City, N. J. Fish Laird is with Hood Rubber Co., Boston, in the production control department. Sam Leland is stock selling for the Manufacturing Equipment and Engraving Co., Framingham, Mass. Dunc Linsley is entering the investment banking business. He spent the summer playing golf, "recuperating from M. I. T.-itis." Since Professor Doten and other notables spent their vacation in a similar manner, no further apology is necessary from Dunc. We note a tone of sadness in his letter akin to "them days is gone forever." Hugh MacDonald is senior clerk in the Western Electric Co., Service Department. Bill MacMahon is now assistant to Fred Hunter, '02, Quantity Surveyor and Contractor, Boston. Frank Maconi is taking a whack at the soap business of Lever Brothers Co., Cambridge. When he cleans up this industry he will look elsewhere, according to present intentions. Dick Malcolm is doing photomicrographic research in the Technical Department of a pulp and paper mill in the wilds of Canada. Wes Manville is established in the palatial quarters of Johns-Manville (no relation) Inc., of Mass., Boston, doing estimating in the asbestos products business. Harris McIntyre is taking a student training course with the New England Tel. & Tel. Co. George Midwood is with Norwood Engineering Co., Florence, Mass. Ted Miller has entered Dewey & Almy Chemical Co., Cambridge. August Oddlafson has joined the ranks of the Eastman Kodak Co., Rochester. Eventually, he will enter the foreign department. Joe Patty is home from his long and interesting trip through Europe and the near East. As stated in the July "Review," his journey was as a member of one of the Collegiate Tours. Joe wrote that he wouldn't mind staying in Egypt for a while. "Two big irrigation projects are under way here, — that of the Nile and that of the Jordan." He thinks Italy and Egypt would be great places for some of Schell's efficiency squad. Since hieing back to Ohio, he has taken up his duties as assistant plant manager of the Greenville Gravel Co. Rod Pettengill is with Archibald Wheel Company, Lawrence, Mass. George Potter is among those who wended their way to Muskegon, Mich., to enter the Continental Motors Corporation. He reports it is an excellent place and the Tech boys are well received. Teddy Riegel is inspector of construction of seventy-five new dwelling houses for the Ware Shoals Manufacturing Co., Ware Shoals, S. C. It is common in many parts of the South for the owners of cotton mills to own the dwelling houses of their employees, as in this case. Incidentally, Riegel is studying at close range various methods of cotton manufacture since this is the industry he has decided to enter. Harry Rockefeller is Sales Engineer for Linde Air Products Co., New York. Ray Rundlett holds a similar title in the Crew Levick Co., Philadelphia. Bill Russell, class representative on the Alumni Council, is in the apartment house business of Charles A. Newhall, Boston. He says, "be sure to see me before renting an apartment." Scotty Scott, with two other Tech fellows, sought the experiences of ocean travel, and hired out during the summer as ordinary seamen on a steamer plying between New York and Buenos Aires, calling at Rio and intermediate points. Sam Seegal is at Harvard, studying for the degree of M. S. Hugh Shirey is another of those who have gravitated to the Eastman Kodak Co., Rochester, N. Y. He is taking a training course there and will eventually enter the sales department. Dale Spoor is in the purchasing department of the Fulton Iron Works Co., St. Louis. Besides him and Chuck Brokaw, Ray Burrus (II), and Lyall Stuart are there. Herb Taylor is teacher of Mathematics and also athletic advisor at the Howard High School, West Bridgewater, Mass. Claus Thellefsen is in the electrical business with his father in Kristiania, Norway. Bob Thulman is with the La Pointe Machine Tool Co., Hudson, Mass. Jim Waechter is sales engineer for Stewart-Sayers Co., New York, manufacturers of power plant equipment, etc. Scotty Westcott is with the Standish Engineering Corporation, Chicago. Red Wilkins is another of those out in Muskegon Mich., with the Continental Motors Corporation.

Thus, as a whole, the gang is already pretty well scattered to the four winds and the future success of many concerns in varied lines is thereby assured. But let's keep together, fellows, as well as we can. These bimonthly notes will help, if you will continue to feed them. Write often, and state details.

Classified Advertising

Mail may be addressed to a Box Number in care of this magazine and will be promptly forwarded to the Advertiser. Other than this, the "Review" assumes no obligation. Such address counts as five words. Copy for insertion in this section must reach the "Review" by the 15th of the month, the magazine being on sale the 25th.

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WANTED: A Physicist, preferably one who has had chemistry through quantitative analysis, for research work along the lines of heat insulation and filtration of liquids. Personality is a considerable factor, as the position would be permanent for a young, alert physicist of proper qualifications. Location is California. Salary to depend upon the qualifications of the applicant. Replies will be held strictly confidential. Address: TECHNOLOGY REVIEW, Box 1000.

AFTER thirty years of executive experience and as a consultant in responsible charge of engineering, design and construction work, including plans, specifications, estimates, the purchase of materials and equipment (both service and operating), and cost keeping, I am seeking a "job" large enough in its possibilities for me to locate in it permanently. My whole record can be placed at the inspection of any interested party. Address: TECHNOLOGY REVIEW, Box 2002.

CHEMIST with master's degree, class of '22. Until recently employed on research staff of the foremost chemical engineering firm in the East. Desires position leading to business or sales end, preferably one where a technical education will be valuable but not necessarily of a chemical nature. Excellent references. Location immaterial. Salary expectations moderate. Address REVIEW, Box 2006.

"Seek and Ye Shall Find"

Over half of the 7,000 readers of this magazine are employers of technically trained men. The rest are in the marketing business; some actively and others somewhat passively. What these latter have to "sell" is their services.

The former, and larger group, are specially interested in Tech men, because they know what "sort they are." Those of the latter class who are members of the alumni association can on this page, confidentially if desired, bring their qualifications to the attention of this former group at a minimum cost.

Even if you are not actively seeking a new "job," somewhere in the organization of the man in this former group may lie that larger opportunity which you always want. If you do not make your qualifications known, these larger opportunities are certain to pass you by undiscovered.

THREE AND ONE-HALF years as assistant engineer in the designing division of the water supply board of a large city. Anxious to locate near Boston, so as to live at home. Qualifications and best of references on request. Salary expected \$2500. Address: REVIEW, Box 2000.

MACHINE DESIGNER who can be valuable to a manufacturer who wants to improve his machines or processes, or to a shop that wants a machine or device to manufacture, is seeking a position. Has clear and correct knowledge of the invention, design and mechanism of intricate instruments. Also can give good service in the manufacture of tires through invention, as have many years experience in that line. Address REVIEW, Box 2001.

MAN exceptionally well trained in modern production methods, and with five years' experience in managerial lines, wishes position as manager of plant that desires to better its production, reduce its costs and to generally increase its efficiency. Further qualifications will be furnished interested parties. Address: REVIEW, Box 2003.

MINING Engineer: Twelve years general mining experience in North and South America with gold, silver, lead, zinc and copper producing companies. Five years as engineering assistant to management of large copper company. Position as assistant to consulting engineer or manager preferred. Speaks Spanish. Address REVIEW, Box 2005.

WANTED: Several salesmen and agents for company manufacturing automobile accessories. Quality of goods exceptionally fine. Wish to build up sales organization of high calibre. Replies will be held strictly confidential. Address REVIEW, Box 1001.

WANTED: By manufacturer of automobiles a young man with a good technical education, preferably one who has had automobile mechanical experience, for work in the Technical Department, which department has charge of all correspondence with distributors, dealers and owners with respect to the mechanical construction of the automobiles and also has supervision of the replaced parts business. Address REVIEW, Box 1002.

WANTED: A man thirty to forty years of age who has had practical paper mill experience—one who is conversant with the different qualities of paper. Should have a pleasing personality and be capable of meeting and conversing easily with people visiting the plant. An executive position in the Purchasing Department. Salary depends upon qualifications of the man. Address REVIEW, Box 1003.

IMMEDIATE opening for engineer capable of doing some editorial work for Marine Review. Some practical experience at sea, in shipyards, or preferably in office of well organized ship operating company desirable. Should have had at least five years practical experience. Experience as technical journalist desirable but not necessary. Ability to write, absolutely essential. Must be familiar with American shipping. Application by letter. Address REVIEW, Box 1004.

MEN between the ages of 26 and 40, who have had at least two years of sales work are wanted from time to time, to fill vacancies on the sales force of a company marketing passenger and commercial vehicles in Boston. Applicants should apply by letter, advising us of the last two positions held and their annual sales record in units and dollars volume. Compensation is on salary or commission and drawing account basis, without limit as to earnings. There is ample opportunity for advancement. Address REVIEW, Box 1006.

AN ALUMNUS of M. I. T. who could qualify for the position of assistant superintendent of a manufacturing plant where a technical education as mechanical engineer is desirable, and also more or less experience in technical education as an electrical engineer, is badly needed. The man who would be desirable is one who has had three or four years practical experience in handling men. For certain confidential reasons we desire to know the experience of any applicant in detail before disclosing our identity. If your letter of application, in which we desire two or more references, is satisfactory, our proposition will be laid before you in fullest detail. Address REVIEW, Box 1007.



The Inspector cuts out a narrow strip of the built-up roof from each 25 squares of roof area. These strips are carefully examined and replaced, being reinforced in such a way that the cut does not impair the strength of the roof. The thick top layer of Specification Pitch and the heavy wearing surface of gravel or slag are then applied.

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Not until the finished Barrett Specification Bonded Roof is approved by a Barrett Inspector, is the roofer's contract with the owner completed. For the Surety Company Bond which guarantees the roof against repair and maintenance expense is issued only on the Inspector's O. K.

And not until the Inspector is sure that the roof conforms strictly to The Barrett Specification—not until he is sure that the required number of layers of Specification Felt and Specification Pitch were used, and properly used—does he approve the job.

He bases his approval upon his own careful observations while the roof was under construction, and as a final and absolute check on both the materials and the workmanship he makes the famous "cut-out test" just before the wearing surface of gravel or slag is applied. This test is shown and described in the picture above.

The Barrett Inspector takes no chances, for the roof must remain staunch and tight during all the years of the bonded period.

The Barrett Bond Guarantee is therefore even more than a readily enforceable pledge of "no roof repairs." It is proof positive that the roof was properly constructed of the highest grade materials. And after all this is the best insurance of long uninterrupted roof service.

There are two types of Barrett Specification Bonded Roofs—Type "AA", bonded for 20 years, and Type "A", bonded for 10 years. Both are built of the same high-grade materials, the only difference being in the quantity used. Before specifying or closing contract for either of these Bonded Roofs, be sure to read carefully all the stipulations contained in the specifications, copies of which will be sent free on request.

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THE BARRETT COMPANY, Limited:
Vancouver

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St. John, N. B.

Toronto
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Winnipeg

***Barrett Specification
Roofs*** Bonded for
20 and 10
Years

The American Sugar Refining Company

117 Wall Street
New York

June 9, 1922
File 2018

Stone & Webster, Inc.,
147 Milk Street,
Boston, Mass.

Gentlemen:-

The completion of our new refinery at Baltimore establishes the latest link in our chain of plant service which extends from our refinery in New Orleans to Baltimore, through Philadelphia and New York to Boston. The labor of construction is over and the wheels of production are turning.

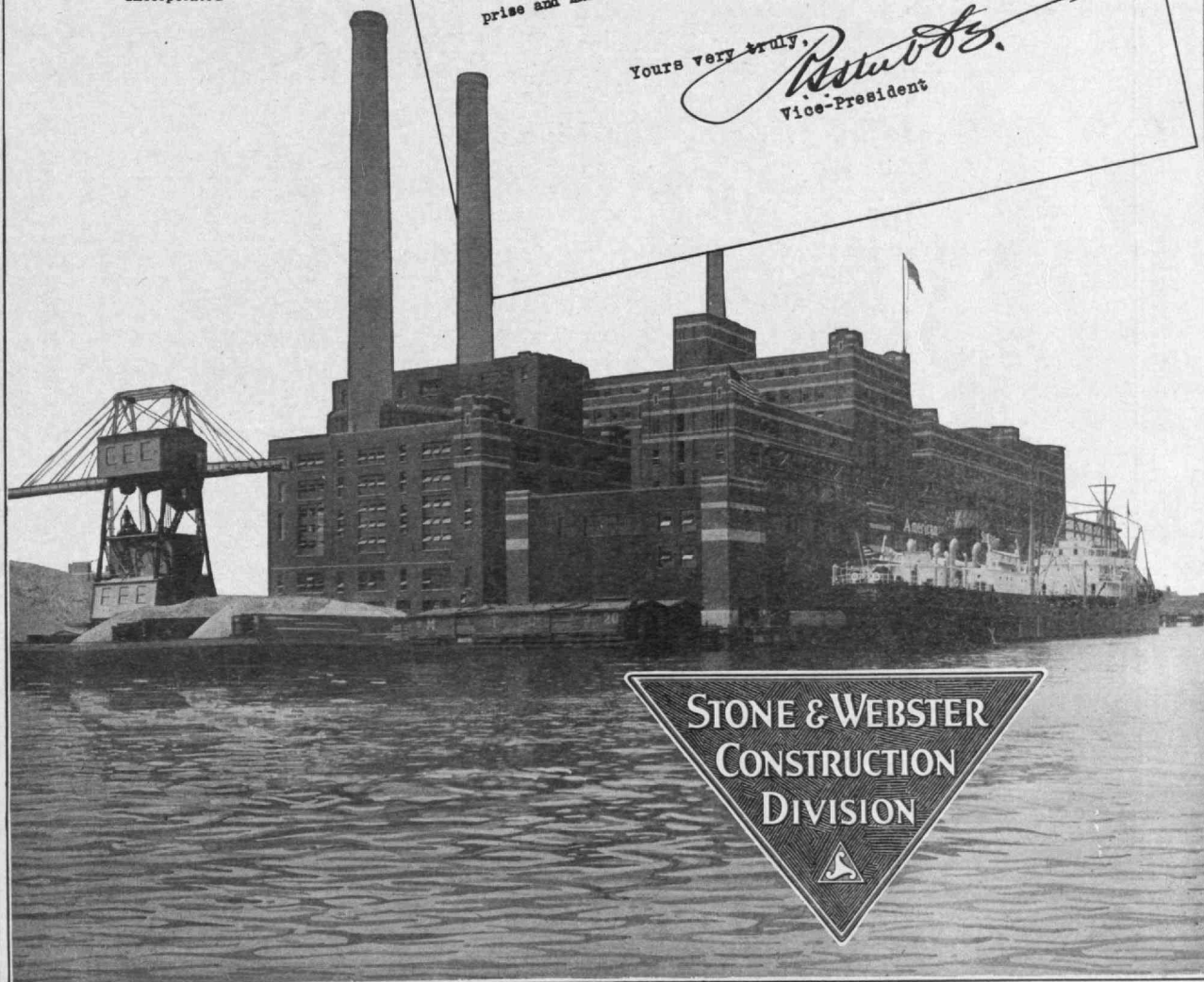
Throughout the construction period of two years, during which time your firm had charge of the engineering design of the Boiler House and coal handling facilities and the construction of the entire plant, you have rendered a service to this Company marked by skill, efficiency and co-operation of a pronounced character, and we take this opportunity of congratulating you upon your part in this great enterprise and know that you share our pride in its completion.

Yours very truly,

Arthur H. S.
Vice-President

A letter received by Stone & Webster, as constructors, on completion of the great Baltimore Refinery of The American Sugar Refining Company pictured below.

STONE & WEBSTER
Incorporated



STONE & WEBSTER
CONSTRUCTION
DIVISION



Serving the Corporation and Municipality

THE financial requirements of modern business and municipal administration are often of such magnitude that a well equipped trust company can be of invaluable assistance in meeting them.

In the case of corporations, this Company serves in a wide variety of fiduciary capacities, effectively relieving the corporation of vast amounts of routine labor, large overhead charges and much responsibility. Through the Transfer Department, it acts as transfer agent and registrar of stock; depository under corporate agreements, reorganizations and consolidations; and as agent for the payment of bonds, coupons and dividends, in which connection the corporation merely deposits the full amount with us. Our Transfer Department also executes such incidental details as the mailing of notices, annual reports or announcements of interest to security holders of the corporation.

Furthermore, the Old Colony Trust Company acts as custodian of securities for corporations, municipalities and individuals, and as trustee under corporate mortgages. It underwrites and certifies entire issues of municipal bonds or notes.

This Company is qualified to handle all phases of corporate and municipal finance. Its authorized powers and facilities are adaptable to almost every conceivable requirement. Our officers will be glad to confer with corporation or municipal executives and explain at greater length our complete fiduciary services as they may apply to any given problem.

We shall be pleased to send you upon request our booklets, "*The Services of this Company as Your Agent*," and "*The Certification of Municipal Bonds*."
Address Department T. R.

OLD COLONY TRUST COMPANY
52 Temple Place 17 Court Street 222 Boylston Street
BOSTON



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